**CITY OF MIDLAND, TEXAS**
**AGENDA FOR CITY COUNCIL MEETING**
**November 14, 2023 - 10:00 AM**
**300 North Loraine**
**Midland, Texas**
**Council Chamber - City Hall**

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A quorum of the City Council intends to be physically present at the aforementioned location.

The City Council may discuss, consider, and take action on any item listed on this agenda.

## OPENING ITEMS

1. Invocation – Pastor Jon Wymore, Livingway Four Square Church

2. Pledge of Allegiance

## PRESENTATIONS

3. Presentation of special events, organizations, individuals, periods of time, or reports, including, but not limited to:

   3a. Presentation from Chief Information Officer Jennifer Frescaz regarding Radio Upgrade and Interoperability Leading to Interlocals.

   3b. Presentation from Assistant City Manager Jose Ortiz regarding the state of the streets.

## CONSENT AGENDA

4. MOTION APPROVING THE FOLLOWING MINUTES:

   4a. REGULAR SESSION OF OCTOBER 24, 2023

   4b. SPECIAL SESSION OF OCTOBER 26, 2023

5. 2023-156 – RESOLUTION CASTING THE CITY OF MIDLAND'S VOTES FOR DIRECTORS OF THE MIDLAND CENTRAL APPRAISAL DISTRICT FOR ROBERT MCNAUGHTON; AND DIRECTING THE CITY MANAGER OR THE CITY MANAGER'S DESIGNEE TO FILE THE APPROPRIATE DOCUMENTS **(DISTRICT: NONE) (FINANCE)**

6. 2023-157 – RESOLUTION AUTHORIZING THE PURCHASE OF A TWO YEAR RENEWAL

OF MAINTENANCE FOR THE EXISTING FIREWALL DEVICES AND ANTIVIRUS SOFTWARE THROUGH THE TEXAS DEPARTMENT OF INFORMATION RESOURCES FROM CDW GOVERNMENT LLC AT A TOTAL COST OF $248,803.28 **(DISTRICT: NONE) (GENERAL SERVICES)**

7. 2023-158 – RESOLUTION AUTHORIZING PURCHASE OF A KOMATSU EXCAVATOR AND ASSOCIATED ATTACHMENTS FROM KIRBY-SMITH MACHINERY, INC., THROUGH BUYBOARD FOR A TOTAL COST OF $396,151.30 **(DISTRICT: NONE) (GENERAL SERVICES)**

8. 2023-159 – RESOLUTION AUTHORIZING THE PURCHASE OF A POWER PAVER, POWER CURBER, AND ASSOCIATED EQUIPMENT FROM CORNWELL CAPITAL II DBA POWER CURBERS COMPANIES LLC THROUGH THE EQUALIS GROUP PURCHASING PROGRAM FOR A TOTAL COST OF $990,650.00 **(DISTRICT: NONE) (GENERAL SERVICES)**

9. 2023-160 – RESOLUTION APPROVING THE PURCHASE OF ONE (1) JOHN DEERE 6110M CAB TRACTOR, ONE (1) JOHN DEERE 1585 TERRAIN CUT COMMERCIAL FRONT MOWER, AND ONE (1) JOHN DEERE 72-INCH 7-IRON PRO COMMERCIAL SIDE MOWER FROM DEERE & COMPANY THROUGH SOURCEWELL FOR A TOTAL COST OF $209,887.38 **(DISTRICT: NONE) (GENERAL SERVICES)**

10. 2023-161 – RESOLUTION APPROVING THE PURCHASE AND UPFITTING OF THIRTY (30) CHEVROLET TAHOES AND TWO (2) CHEVROLET SILVERADO 1500 PICKUP TRUCKS FROM CALDWELL COUNTRY CHEVEROLET, LLC, THROUGH BUYBOARD AT A TOTAL COST OF $2,641,694.00 **(DISTRICT: NONE) (GENERAL SERVICES)**

11. 2023-162 – RESOLUTION RESCINDING RESOLUTION 2023-115; REJECTING THE SOLE PROPOSAL RECEIVED; AND AUTHORIZING THE CITY MANAGER TO ADVERTISE A REQUEST FOR COMPETITIVE SEALED PROPOSALS FOR THE NORTH CITIZEN COLLECTION STATION PROJECT AND THE WEST CITIZEN COLLECTION STATION PROJECT **(DISTRICT: ALL) (GENERAL SERVICES)**

12. 2023-163 – RESOLUTION AUTHORIZING THE PURCHASE OF HERBICIDE FOR THE PLANT FARM FROM HELENA AGRI-ENTERPRISES, LLC OF STANTON, TEXAS, AT A TOTAL COST OF $134,691.00 **(DISTRICT: NONE) (GENERAL SERVICES)**

13. 2023-164 – RESOLUTION RATIFYING THE EXECUTION OF AN AGREEMENT WITH ONCOR ELECTRIC DELIVERY COMPANY LLC (“ONCOR”) FOR THE RELOCATION OF ONCOR’S FACILITIES IN CONNECTION WITH THE EXTENSION OF WEST WADLEY AVENUE AT A COST OF $102,733.01; AND AUTHORIZING PAYMENT **(DISTRICT: NONE) (GENERAL SERVICES)**

14. 2023-165 – RESOLUTION AUTHORIZING THE PURCHASE OF AN ESTIMATED ANNUAL SUPPLY OF CHEMICALS FOR THE WATER RECLAMATION FACILITY FOR FISCAL YEAR 2024 FROM MULTIPLE BIDDERS, FOR A TOTAL COST OF $397,335.00

**(DISTRICT: NONE) (GENERAL SERVICES)**

15. 2023-166 – RESOLUTION AUTHORIZING THE EXECUTION OF A PROFESSIONAL SERVICES AGREEMENT WITH AVENU INSIGHTS AND ANALYTICS, LLC OF CENTREVILLE, VIRGINIA, FOR ACCOUNTING SERVICES CONCERNING SALES AND USE TAX ADMINISTRATION, HOTEL AUDITING AND FRANCHISE FEE AUDITING; AND AUTHORIZING PAYMENT **(DISTRICT: NONE) (GENERAL SERVICES)**

16. 131-2023 – MOTION AUTHORIZING THE EXECUTION OF A 2024 ROUTINE AIRPORT MAINTENANCE PROGRAM AGREEMENT BETWEEN THE CITY OF MIDLAND, TEXAS, AND THE TEXAS DEPARTMENT OF TRANSPORTATION TO RECEIVE FUNDS IN THE AMOUNT OF $100,000.00 FOR CERTAIN MAINTENANCE AND IMPROVEMENTS AT MIDLAND AIRPARK **(DISTRICT 4) (AIRPORTS)**

17. 2023-167 – RESOLUTION APPROVING THE PURCHASE OF FURNITURE AND ASSOCIATED EQUIPMENT FOR THE MIDLAND INTERNATIONAL AIR & SPACE PORT TERMINAL BUILDING FROM SEWCO, INC., DBA OFFICEWISE FURNITURE AND EQUIPMENT THROUGH THE INTERLOCAL PURCHASING SYSTEM AND OMNIA PARTNERS FOR A TOTAL COST OF $203,927.33 **(DISTRICT 4) (AIRPORTS)**

18. 132-2023 – MOTION APPROVING PLANS AND SPECIFICATIONS FOR THE MIDLAND AIRPARK ENTRY ROAD ENHANCEMENTS PROJECT, SAID PLANS AND SPECIFICATIONS BEING ON FILE IN THE CITY SECRETARY'S OFFICE REFERENCED BY THE NUMBER AND DATE OF THIS MOTION, AND AUTHORIZING THE CITY MANAGER OR THE CITY MANAGER'S DESIGNEE TO ADVERTISE FOR COMPETITIVE BIDS FOR SAID PROJECT PURSUANT TO THE STATUTES OF THE STATE OF TEXAS FOR ACCOMPLISHING THE WORK SET FORTH IN SAID PLANS AND SPECIFICATIONS **(DISTRICT 4) (AIRPORTS)**

19. 133-2023 – MOTION AUTHORIZING THE EXECUTION OF AMENDMENT #9 TO THE PROFESSIONAL SERVICES AGREEMENT WITH PARKHILL AND PROVIDING THE DESIGN PHASE OF THE TERMINAL MODERNIZATION AND CHECKPOINT RELOCATION PROJECT AND THE AIRFIELD SNOW REMOVAL VEHICLES AND EQUIPMENT ACQUISITION PROJECT, APPROPRIATING FUNDING TO BOTH PROJECTS **(DISTRICT 4) (AIRPORTS)**

20. 134-2023 – MOTION AUTHORIZING THE EXECUTION OF A SECOND AMENDMENT TO THAT CERTAIN NON-EXCLUSIVE COMMERCIAL FIXED BASE OPERATOR LEASE AGREEMENT DATED MARCH 29, 2023, BETWEEN THE CITY OF MIDLAND, TEXAS, AND FRANKLIN MOUNTAIN AVIATION MAF, LLC; SAID AMENDMENT PROVIDING FOR AN EXTENSION OF THE DUE DILIGENCE EXPIRATION DATE FROM NOVEMBER 24, 2023, TO FEBRUARY 22, 2024 **(DISTRICT 4) (AIRPORTS)**

21. 135-2023 – MOTION APPROVING PLANS AND SPECIFICATIONS FOR THE MIDLAND AIRPARK NORTH FENCE REPLACEMENT PROJECT, SAID PLANS AND SPECIFICATIONS BEING ON FILE IN THE CITY SECRETARY'S OFFICE REFERENCED

BY THE NUMBER AND DATE OF THIS MOTION, AND AUTHORIZING THE CITY MANAGER OR THE CITY MANAGER'S DESIGNEE TO ADVERTISE FOR COMPETITIVE BIDS FOR SAID PROJECT PURSUANT TO THE STATUTES OF THE STATE OF TEXAS FOR ACCOMPLISHING THE WORK SET FORTH IN SAID PLANS AND SPECIFICATIONS **(DISTRICT 4) (AIRPORTS)**

22. 136-2023 – MOTION APPROPRIATING THE SUM OF $400,000.00 FROM THE AIRPORT UNAPPROPRIATED FUND BALANCE TO THE MULTI-FACILITY REHAB PROJECT (900308); AND TRANSFERRING THE SUM OF $400,000.00 FROM THE MULTI-FACILITY REHAB PROJECT (900308) TO THE AIRPORT OPERATING GRANT FUND PROJECT **(DISTRICT 4) (AIRPORTS)**

23. 2023-168 – RESOLUTION ESTABLISHING THE DATES OF THE REGULAR CITY COUNCIL MEETINGS TO BE HELD DURING THE CALENDAR YEAR 2024 **(DISTRICT: ALL) (CITY SECRETARY'S OFFICE)**

24. 137-2023 – MOTION AUTHORIZING THE CITY MANAGER TO EXECUTE A FIRST AMENDMENT TO SURFACE USE AGREEMENT WITH MIDLAND-PETRO D.C. PARTNERS, LLC, REGARDING DRILLING AND PRODUCTION OPERATIONS LOCATED ON AN APPROXIMATE 16.87-ACRE TRACT OF LAND OUT OF SECTION 14, BLOCK 39, T-1-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ADJACENT TO MIDLAND AIRPARK) **(DISTRICT 3) (DEVELOPMENT SERVICES)**

25. 2023-169 – RESOLUTION GRANTING VARIANCES FOR 12 OIL AND GAS WELLS TO BE LOCATED CLOSER THAN 500 FEET OF AN OCCUPIED RESIDENCE OR COMMERCIAL STRUCTURE; APPROVING THE ISSUANCE OF PERMITS TO PERMIAN DEEP ROCK OIL CO., LLC ("OPERATOR") TO DRILL SAID OIL AND GAS WELLS LOCATED IN SECTION 14, BLOCK 39, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS (GENERALLY LOCATED BETWEEN 768 FEET AND 1,022 FEET EAST OF NORTH A STREET EXTENSION AND BETWEEN 1,817 FEET AND 2,067 FEET SOUTH OF WEST LOOP 250 NORTH); AND PROVIDING THAT SAID PERMITS DO NOT REQUIRE A NEW ROAD REPAIR AGREEMENT BUT SHALL BE CONSOLIDATED UNDER AN EXISTING ROAD REPAIR AGREEMENT **(DISTRICT 3) (DEVELOPMENT SERVICES)**

26. 138-2023 – MOTION AUTHORIZING THE EXECUTION OF A SUBSURFACE USE AGREEMENT BETWEEN THE CITY OF MIDLAND AND PIONEER NATURAL RESOURCES USA, INC., REGARDING CERTAIN CITY-OWNED PROPERTY DESCRIBED AS THE SOUTH 500 FEET OF SECTION 16, BLOCK 37, T-2-S, W.T. HALCOMBE SURVEY, MIDLAND COUNTY, TEXAS **(DISTRICT:NONE) (DEVELOPMENT SERVICES)**

27. 139-2023 – MOTION AUTHORIZING THE CITY MANAGER OR THE CITY MANAGER'S DESIGNEE TO ADVERTISE A REQUEST FOR PROPOSALS FOR DOWNTOWN PARKING MANAGEMENT SERVICES TO INCLUDE PAY-BY-MOBILE APPLICATION

PARKING AND INCIDENTAL SERVICES FOR ON-STREET PARKING, SURFACE PARKING LOTS, AND PUBLIC PARKING SPACES LOCATED AT PARKING GARAGES, AND TO NEGOTIATE AN AGREEMENT FOR SAID SERVICES; PROVIDED HOWEVER, THAT SAID AGREEMENT SHALL NOT BECOME EFFECTIVE UNTIL APPROVED BY THE CITY COUNCIL **(DISTRICT 2) (ENGINEERING SERVICES)**

28. 2023-170 – RESOLUTION AUTHORIZING THE ACCEPTANCE OF A GIFT DEED FROM PARK HILL RESOURCES, LLC, CONVEYING A 0.464-ACRE TRACT OF LAND LOCATED IN THE W.M. BALDRIDGE SURVEY NO. 17, BLOCK 37, T-2-S, ABSTRACT NO. 1065, MIDLAND COUNTY, TEXAS; AND ORDERING RECORDATION BY THE CITY SECRETARY **(DISTRICT: NONE) (UTILITIES)**

29. 2023-171 – RESOLUTION AUTHORIZING THE CITY MANAGER, DEPUTY CITY MANAGER, OR AN ASSISTANT CITY MANAGER TO EXECUTE ALL DOCUMENTS RELATED TO ACQUISITIONS OF REAL PROPERTY INTERESTS ON BEHALF OF THE CITY OF MIDLAND TO THE EXTENT THAT THE CITY COUNCIL PREVIOUSLY AUTHORIZED THE CITY MANAGER TO ACQUIRE REAL PROPERTY INTERESTS OR EXECUTE SUCH DOCUMENTS **(DISTRICT: ALL) (UTILITIES)**

**SECOND READINGS**

30. 10448 – AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS, PURSUANT TO CHAPTER 311 OF THE TEXAS TAX CODE, CREATING TAX INCREMENT FINANCING REINVESTMENT ZONE NUMBER TWO, CITY OF MIDLAND, TEXAS **(DISTRICT: 2 & 3) (COMMUNITY SERVICES)** (FIRST READING HELD OCTOBER 24, 2023)

31. 10449 – AN ORDINANCE VACATING AND ABANDONING A 0.138-ACRE PORTION OF ALLEY RIGHT-OF-WAY, LOCATED WITHIN BLOCK 127, SOUTHERN ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED SOUTH OF EAST KENTUCKY AVENUE, APPROXIMATELY 100 FEET WEST OF SOUTH LAMESA ROAD); ADOPTING THE APPRAISAL BY THE ASSISTANT CITY MANAGER OF $12,000.00; RETAINING A NONEXCLUSIVE UTILITY EASEMENT; AND ORDERING RECORDATION BY THE CITY SECRETARY **(DISTRICT 2) (DEVELOPMENT SERVICES)** (FIRST READING HELD OCTOBER 24, 2023)

32. 10450 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOTS 1 THROUGH 6 AND A 0.138-ACRE TRACT OF LAND, BLOCK 127, SOUTHERN ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF SOUTH LAMESA ROAD AND EAST KENTUCKY AVENUE), BY PERMITTING A METAL SCREENING FENCE IN LIEU OF A MASONRY SCREENING WALL; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION **(DISTRICT 2) (DEVELOPMENT SERVICES)** (FIRST READING HELD OCTOBER 24, 2023)

33. 10451 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 2, BLOCK 3, MELODY ACRES, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF TANFORAN AVENUE, APPROXIMATELY 200 FEET EAST OF ORIOLE DRIVE), BY PERMITTING A REDUCED MINIMUM LOT AREA; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION **(DISTRICT 4) (DEVELOPMENT SERVICES)** (DEFERRED FROM SEPTEMBER 26, 2023) (FIRST READING HELD OCTOBER 24, 2023)

34. 10452 – AN ORDINANCE VACATING AND ABANDONING A 0.42-ACRE PORTION OF NORTH N STREET RIGHT-OF WAY AND A 0.13-ACRE PORTION OF ALLEY RIGHT-OF-WAY, EACH LOCATED ADJACENT TO OR WITHIN BLOCK 11, HIGHLAND PARK ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED NORTH OF THE INTERSECTION OF NORTH N STREET AND WEST ILLINOIS AVENUE); ADOPTING THE APPRAISAL BY THE ASSISTANT CITY MANAGER OF $75,592.00; RETAINING A NONEXCLUSIVE UTILITY EASEMENT; AND ORDERING RECORDATION BY THE CITY SECRETARY **(DISTRICT 3) (DEVELOPMENT SERVICES)** (FIRST READING HELD OCTOBER 24, 2023)

35. 10453 – AN ORDINANCE AMENDING TITLE XI, “PLANNING AND DEVELOPMENT” OF THE CITY CODE OF MIDLAND, TEXAS, BY ADDING CHAPTER 1A, “CENTENNIAL ENTERTAINMENT OVERLAY DISTRICT” SO AS TO ESTABLISH AN OVERLAY ZONING DISTRICT; ESTABLISHING PROVISIONS RELATED TO LAND USE AND DEVELOPMENT WITHIN SAID OVERLAY ZONING DISTRICT; AMENDING THE ZONING MAP; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ESTABLISHING AN EFFECTIVE DATE OF DECEMBER 1, 2023; AND ORDERING PUBLICATION **(DISTRICT: ALL) (DEVELOPMENT SERVICES)** (FIRST READING HELD OCTOBER 24, 2023)

## PUBLIC HEARINGS

The City Council will hold public hearings on the following items:

36. 10454 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITHOUT TERM FOR LOT 1, BLOCK 1, CLAYDESTA PLAZA NORTH, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF NORTH BIG SPRING STREET AND WEST 250 LOOP NORTH), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR COMMERCIAL AMUSEMENT (OUTDOORS); MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION

**(DISTRICT 3) (DEVELOPMENT SERVICES)**

37. 10455 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITHOUT TERM FOR LOT 1, BLOCK 1, CLAYDESTA PLAZA NORTH, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF NORTH BIG SPRING STREET AND WEST 250 LOOP NORTH), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR A MOBILE FOOD VENDOR PARK; MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION **(DISTRICT 3) (DEVELOPMENT SERVICES)**

38. 10456 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR LOT 1, BLOCK 1, CLAYDESTA PLAZA NORTH, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF NORTH BIG SPRING STREET AND WEST 250 LOOP NORTH), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A MOBILE FOOD VENDOR PARK AND COMMERCIAL AMUSEMENT (OUTDOOR) FACILITY FOR ON-PREMISES CONSUMPTION; MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION **(DISTRICT 3) (DEVELOPMENT SERVICES)**

39. 10457 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE A 23.93-ACRE TRACT OF LAND OUT OF SECTION 27, BLOCK 39, T-1-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS, FROM PD, PLANNED DEVELOPMENT DISTRICT FOR A MEDICAL CENTER AND HOSPITAL, IN PART, AND O-1, OFFICE DISTRICT, IN PART, TO PD, PLANNED DEVELOPMENT DISTRICT FOR A MEDICAL CENTER AND HOSPITAL (GENERALLY LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF KENT STREET AND WEST MICHIGAN AVENUE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION **(DISTRICT 3) (DEVELOPMENT SERVICES)**

40. 140-2023 – THE PROPOSED GRANTING OF OIL AND GAS WELL PERMITS TO PERMIAN DEEP ROCK OIL CO., LLC (“OPERATOR”) FOR THE DRILLING OF THE FOLLOWING OIL AND GAS WELLS: CHARGER 110 MIPA UNIT #H110SX AND CHARGER 120 MIPA UNIT #H120MX; SAID WELLS BEING GENERALLY LOCATED BETWEEN 2,280 FEET AND 2,310 FEET WEST OF RANKIN HIGHWAY AND

BETWEEN 483 AND 520 FEET SOUTH OF WEST I-20; PUBLIC HEARING ONLY **(DISTRICT 2) (DEVELOPMENT SERVICES)**

41. 141-2023 – THE PROPOSED GRANTING OF OIL AND GAS WELL PERMITS TO PERMIAN DEEP ROCK OIL CO., LLC ("OPERATOR") FOR THE DRILLING OF THE FOLLOWING OIL AND GAS WELLS: MUSTANG 120 MIPA UNIT #H120MX; MUSTANG 130 MIPA UNIT #H130SX; AND MUSTANG 140 MIPA UNIT #H140MX; SAID WELLS BEING GENERALLY LOCATED 1,625 FEET EAST OF RANKIN HIGHWAY AND BETWEEN 625 AND 675 FEET SOUTH OF WEST I-20; PUBLIC HEARING ONLY **(DISTRICT 2) (DEVELOPMENT SERVICES)**

42. 142-2023 – THE PROPOSED GRANTING OF OIL AND GAS WELL PERMITS TO PERMIAN DEEP ROCK OIL CO., LLC ("OPERATOR") FOR THE DRILLING OF THE FOLLOWING OIL AND GAS WELLS: MUSTANG 150 MIPA UNIT #H150SX AND MUSTANG 160 MIPA UNIT #H160MX; SAID WELLS BEING GENERALLY LOCATED BETWEEN 1,101 FEET AND 1,131 FEET WEST OF RANKIN HIGHWAY AND 560 FEET SOUTH OF WEST I-20; PUBLIC HEARING ONLY **(DISTRICT 2) (DEVELOPMENT SERVICES)**

43. 10458 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 52, BLOCK 31, LONE STAR TRAILS ADDITION, SECTION 5, CORRECTION PLAT, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF LONE STAR LANE AND BURNETT LANE), BY PERMITTING A REDUCED MINIMUM REAR YARD SETBACK; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION **(DISTRICT 1) (DEVELOPMENT SERVICES)**

44. 10459 – AN ORDINANCE AMENDING TITLE XI, "PLANNING AND DEVELOPMENT", CHAPTER XI, "AIRPORT HEIGHT HAZARD AND COMPATIBLE LAND USE ZONING," OF THE CITY CODE OF MIDLAND, TEXAS, SO AS TO REPLACE THE MIDLAND INTERNATIONAL AIRPORT COMPATIBLE LAND USE ZONING MAP DATED JUNE 2014 WITH THE REVISED MIDLAND INTERNATIONAL AIRPORT COMPATIBLE LAND USE ZONING MAP; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION **(DISTRICT 4) (DEVELOPMENT SERVICES)**

45. 10460 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR A 0.42-ACRE TRACT OF LAND OUT OF LOT 2, BLOCK 30, HALEY HEIGHTS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF SOUTH MCKENZIE STREET AND WEST FRANCIS AVENUE), BY PERMITTING A REDUCED MINIMUM LOT WIDTH; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS

($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION **(DISTRICT 2) (DEVELOPMENT SERVICES)**

46. 10461 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR THE SOUTH 14 FEET OF LOT 16, THE ENTIRETY OF LOT 17, AND THE NORTH 10.5 FEET OF LOT 18, BLOCK 2, TEJAS TERRACE ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE WEST SIDE OF NORTH H STREET APPROXIMATELY 150 FEET SOUTH OF STANOLIND AVENUE), BY PERMITTING (1) AN INCREASED MAXIMUM NUMBER OF ACCESSORY BUILDINGS AND (2) A REDUCED MINIMUM REAR YARD SETBACK; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION **(DISTRICT 3) (DEVELOPMENT SERVICES)**

47. 10462 – AN ORDINANCE VACATING AND ABANDONING A 0.159-ACRE PORTION OF ROPE STREET RIGHT-OF-WAY LOCATED ADJACENT TO LOT 1, BLOCK 1, ADOBE MEADOWS ADDITION, SECTION 8, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE EAST SIDE OF ROPE STREET, APPROXIMATELY 435 FEET NORTH OF MOCKINGBIRD LANE); ADOPTING THE APPRAISAL BY THE ASSISTANT CITY MANAGER OF $477.00; RETAINING A NONEXCLUSIVE UTILITY EASEMENT; AND ORDERING RECORDATION BY THE CITY SECRETARY **(DISTRICT: 1) (DEVELOPMENT SERVICES)**

48. 10463 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 3A, BLOCK 52, BELMONT ADDITION, SECTION 12, CITY AND COUNTY OF MIDLAND, TEXAS, FROM PD, PLANNED DEVELOPMENT DISTRICT FOR A SHOPPING CENTER TO RR, REGIONAL RETAIL DISTRICT (GENERALLY LOCATED ON THE NORTH SIDE OF WEST LONGVIEW AVENUE, APPROXIMATELY 165 FEET EAST OF BELMONT STREET); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION **(DISTRICT 2) (DEVELOPMENT SERVICES)**

49. 10464 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 18, BLOCK 1, EDWARDS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS, FROM MF-16, MULTIPLE-FAMILY DWELLING DISTRICT TO SF-3, SINGLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED ON THE WEST SIDE OF NORTH DALLAS STREET, APPROXIMATELY 200 FEET NORTH OF MISSISSIPPI AVENUE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION **(DISTRICT 2) (DEVELOPMENT SERVICES)**

50. 2023-172 – RESOLUTION AUTHORIZING THE TEMPORARY USE OF LAND FOR A BARBECUE COOK-OFF AND MUSIC FESTIVAL ON LOT 1A, BLOCK 54, LOT 1A, BLOCK 55, A 0.86-ACRE PORTION OF NORTH COLORADO STREET RIGHT-OF-WAY LOCATED ADJACENT TO BLOCK 55, A 1.26-ACRE PORTION OF WEST TEXAS AVENUE RIGHT-OF-WAY LOCATED ADJACENT TO BLOCKS 54 AND 55, AND A 1.26-ACRE PORTION OF WEST WALL STREET RIGHT-OF-WAY LOCATED ADJACENT TO BLOCKS 54 AND 55, ALL OUT OF ORIGINAL TOWN ADDITION, SECTION 14, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED NORTHWEST OF THE INTERSECTION OF NORTH COLORADO STREET AND WEST WALL STREET) SUBJECT TO CERTAIN SPECIAL CONDITIONS AND RESTRICTIONS **(DISTRICT 2) (DEVELOPMENT SERVICES)**

## MISCELLANEOUS

51. MOTION MAKING APPOINTMENTS TO VARIOUS BOARDS AND COMMISSIONS **(DISTRICT:NONE) (CITY SECRETARY'S OFFICE)**

## PUBLIC COMMENT

52. Receive public comments where individuals may address the City Council on City related issues and projects not on the present agenda. Any deliberation of or decision by the City Council regarding the item being discussed shall be limited to a motion to place the item on the agenda for a subsequent meeting. (Please limit comments to three minutes or less.)

## EXECUTIVE SESSION

53. Pursuant to Texas Government Code § 551.101, the City Council will hold an Executive Session, which is closed to the public, to discuss the following matters as permitted under the following sections of the Texas Government Code:

a. Section 551.071, Consultation with Attorney

a.1. Discuss pending or contemplated litigation.

b. Section 551.074, Personnel Matters

b.1. Deliberate the employment, evaluation, or duties of the City Attorney.

c. Section 551.072, Deliberation Regarding Real Property

c.1. Discuss the purchase, exchange, lease or value of real property.

Respectfully Submitted,

Tommy Gonzalez
City Manager

MEETING ASSISTANCE INFORMATION: The Midland City Hall and Council Chamber are wheelchair accessible. If you need special assistance to participate in this meeting, please contact the City Secretary's Office at (432) 685-7430. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

**MIDLAND CITY COUNCIL**
**MINUTES**
**October 24, 2023**

DRAFT

The City Council convened in regular session in the Council Chamber, City Hall, Midland, Texas, at 10:00 a.m., October 24, 2023.

**Council Members present:** Amy Stretcher Burkes, Dan Corrales, Robin Poole, Lori Blong, Scott Dufford, Jack Ladd, John Norman

**Council Members absent:** None

**Staff members present:** City Manager Tommy Gonzalez, City Attorney John Ohnemiller, Deputy City Manager Morris Williams Jr., Assistant City Manager Tina Jauz, Assistant City Manager Jose Ortiz

The meeting was called to order at 10:01 a.m.

## OPENING ITEMS

1. Invocation – Pastor Darin Wood, First Baptist Church of Midland

2. Pledge of Allegiance

## PRESENTATIONS

3. Presentation of special events, organizations, individuals, periods of time, or reports, including, but not limited to:

   3a. Presentation of Proclamation for “Michael Crain Day”

   3b. Presentation of Proclamation for “Municipal Court Week”

   3c. Presentation of Proclamation for “World Polio Day”

   3d. Presentation from Budget Manager Alyssa Coppens regarding the 5-year forecast for fixed costs.

   Alyssa Coppens, Budget Manager, gave a brief overview of the Budget Breakdown: 5-Year Forecast. Ms. Coppens reviewed Forecasting, which involves predicting the financial future, assumptions and educated guesses, informed decision making and

educated decision making.

Ms. Coppens also briefly reviewed the Strategic Plan, Goals, Action Items, Budget Recap for FY2024, Forecasting Assumptions and Expenses vs Revenue through FY 2029.

3e. Presentation from the Midland Skatepark Association.

Dustin Johnson, Midland Skatepark Association, gave a brief overview of Beal Park Skate Park improvements such as the water fountain, skateboard repair station and shaded benches. Several members of Council thanked Mr. Johnson who also presented a check to the City.

**CONSENT AGENDA**

4. MOTION APPROVING THE FOLLOWING MINUTES:

4a. WORK SESSION OF OCTOBER 10, 2023

4b. REGULAR SESSION OF OCTOBER 10, 2023

7. 2023-146 – RESOLUTION APPROVING THE PURCHASE OF A JOHN DEERE 410 P-TIER BACKHOE LOADER FROM YELLOWHOUSE MACHINERY CO. THROUGH SOURCEWELL FOR A TOTAL COST OF $168,197.66 **(DISTRICT: NONE) (GENERAL SERVICES)**

8. 2023-147 – RESOLUTION AUTHORIZING PURCHASE OF A TEREX EVOQUIP COBRA 230R IMPACT CRUSHER FROM POWERSCREEN TEXAS, INC., THROUGH BUYBOARD FOR A TOTAL COST OF $591,533.00 **(DISTRICT: NONE) (GENERAL SERVICES)**

9. 2023-148 – RESOLUTION APPROVING THE PURCHASE OF SIXTY (60) BUNKER COATS AND SIXTY (60) BUNKER PANTS FROM DOOLEY TACKABERRY, INC., TROUGH BUYBOARD AT A TOTAL COST OF $276,445.20 **(DISTRICT: NONE) (GENERAL SERVICES)**

10. 2023-149 – RESOLUTION APPROVING THE PURCHASE OF AN AMBULANCE AND ASSOCIATED EQUIPMENT FROM STERLING MCCALL FORD THROUGH THE HOUSTON-GALVESTON AREA COUNCIL AT A TOTAL COST OF $362,276.00 **(DISTRICT: NONE) (GENERAL SERVICES)**

11. 2023-150 – RESOLUTION APPROVING THE PURCHASE OF A SPARTAN METRO PUMPER FROM METRO FIRE APPARATUS SPECIALISTS, INC., THROUGH THE HOUSTON-GALVESTON AREA COUNCIL FOR A TOTAL COST OF $1,448,347.00 **(DISTRICT: NONE) (GENERAL SERVICES)**

12. 2023-151 – RESOLUTION APPROVING THE PURCHASE OF ONE HUNDRED THIRTY (130) 2024 YAMAHA ELECTRIC GOLF CARTS FROM YAMAHA GOLF CAR COMPANY

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THROUGH BUYBOARD AT A TOTAL COST OF $559,000.00; AND AUTHORIZING THE TRADE-IN OF ONE HUNDRED THIRTY (130) CITY-OWNED YAMAHA DRIVE 2 GOLF CARTS **(DISTRICT 2) (GENERAL SERVICES)**

13. 2023-152 – RESOLUTION AUTHORIZING THE PURCHASE OF 130,000 POUNDS OF SODIUM PERMANGANATE - 20% SOLUTION NEEDED FOR THE TREATMENT OF DRINKING WATER FOR FISCAL YEAR 2024 FROM UNIVAR SOLUTIONS USA INC. FOR A TOTAL COST OF $223,600.00; AND RESCINDING THE PORTIONS OF RESOLUTION 2023-116 IN CONFLICT WITH THIS RESOLUTION **(DISTRICT: NONE) (GENERAL SERVICES)**

14. 124-2023 – MOTION APPROVING PLANS AND SPECIFICATIONS FOR THE CONSTRUCTION OF A NEW LIFT STATION AT THE I-20 WILDLIFE PRESERVE FOR THE WALL STREET SEWER DIVERSION, SAID PLANS AND SPECIFICATIONS BEING ON FILE IN THE CITY SECRETARY'S OFFICE REFERENCED BY THE NUMBER AND DATE OF THIS MOTION, AND AUTHORIZING THE CITY MANAGER OR THE CITY MANAGER'S DESIGNEE TO ADVERTISE FOR COMPETITIVE BIDS FOR SAID PROJECT PURSUANT TO THE STATUTES OF THE STATE OF TEXAS FOR ACCOMPLISHING THE WORK SET FORTH IN SAID PLANS AND SPECIFICATIONS **(DISTRICT: ALL) (GENERAL SERVICES)**

15. 125-2023 – MOTION APPROVING AN ECONOMIC DEVELOPMENT AGREEMENT BETWEEN THE MIDLAND DEVELOPMENT CORPORATION AND MOTRAN ALLIANCE, INC. **(DISTRICT: ALL) (CITY MANAGER)**

18. 2023-153 – RESOLUTION AUTHORIZING THE EXECUTION OF COMMUNITY DEVELOPMENT BLOCK GRANT CONTRACTS WITH CASA DE AMIGOS OF MIDLAND, TEXAS, INCORPORATED, THE SALVATION ARMY OF MIDLAND, THE MIDLAND COUNTY HOSPITAL DISTRICT, SENIOR LIFE MIDLAND, INC., MISSION HEALTH CARE, INC., HELLINGHAUSEN HOPE, INC., THRIVING UNITED, INC., AND CHURCH ON WHEELS, INC.; AUTHORIZING THE FUNDING OF COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAMS FOR A TOTAL COST OF $1,268,782.00; AND APPROPRIATING AND ALLOCATING FUNDS **(DISTRICT: ALL) (DEVELOPMENT SERVICES)**

19. 128-2023 – MOTION APPROVING WITH STAFF'S RECOMMENDED CONDITIONS A PROPOSED PRELIMINARY PLAT OF PIONEER NATURAL RESOURCES USA ADDITION, BEING A PLAT OF AN 87.55-ACRE TRACT OF LAND OUT OF SECTIONS 33 AND 40, BLOCK 38, T-1-S, T&P RR CO. SURVEY, MIDLAND COUNTY, TEXAS (GENERALLY LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF NORTH COUNTY ROAD 1140 AND EAST STATE HIGHWAY 80) **(DISTRICT: NONE) (DEVELOPMENT SERVICES)**

22. 2023-155 – RESOLUTION ACCEPTING A GRANT IN THE AMOUNT OF $52,686.00 FROM THE FISCAL YEAR 2023 EDWARD BYRNE MEMORIAL JUSTICE ASSISTANCE GRANT PROGRAM PROVIDED BY THE OFFICE OF JUSTICE PROGRAMS FOR THE

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UNITED STATES DEPARTMENT OF JUSTICE; SAID GRANT FUNDS SHALL BE USED TO PURCHASE FLOCK LICENSE PLATE CAMERAS FOR THE POLICE DEPARTMENT; AND APPROPRIATING SAID GRANT FUNDS **(DISTRICT: ALL) (POLICE)**

Jack Ladd moved to approve consent agenda items 4-22, excluding items 5, 6, 16, 17, 20 & 21; seconded by Amy Stretcher Burkes.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

**The following item(s) were pulled from consent agenda and considered individually.**

5. 2023-144 – RESOLUTION AUTHORIZING THE SOLE-SOURCE PURCHASE OF A FITNESS COURT FOR DENNIS THE MENACE PARK FROM NATIONAL FITNESS CAMPAIGN LP FOR A TOTAL COST OF $105,000.00 **(DISTRICT 2) (GENERAL SERVICES)**

   Community Services Assistant Director Laurie Williams gave a brief overview of the item noting this is for a fitness court for Dennis the Menace Park from the National Fitness Campaign. Ms. Williams gave an update on improvements that have been done at the park.

   Scott Dufford moved to approve Resolution No. 2023-144; seconded by Dan Corrales.

   The motion passed by the following vote:
   AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
   NAY: None
   ABSTAIN: None
   ABSENT: None

6. 2023-145 – RESOLUTION AUTHORIZING PURCHASE OF A WIRTGEN W 120 XTI COLD MILLING MACHINE FROM KIRBY-SMITH MACHINERY, INC., THROUGH BUYBOARD FOR A TOTAL COST OF $502,269.45 **(DISTRICT: NONE) (GENERAL SERVICES)**

   Council Member Corrales pointed out the City is repaving some of their own roads and thanked staff for their work.

   Dan Corrales moved to approve Resolution No. 2023-145; seconded by John Norman.

   The motion passed by the following vote:
   AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
   NAY: None
   ABSTAIN: None
   ABSENT: None

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16. 126-2023 – MOTION APPROVING AN ECONOMIC DEVELOPMENT AGREEMENT BETWEEN THE MIDLAND DEVELOPMENT CORPORATION AND KLJ ENGINEERING, LLC **(DISTRICT: ALL) (CITY MANAGER)**

ITEM PULLED NO ACTION TAKEN

17. 127-2023 – MOTION AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND EXECUTE AN AGREEMENT WITH SPECIAL OLYMPICS TEXAS, INC., TO HOST FALL CLASSIC EVENTS IN THE CITY OF MIDLAND BEGINNING IN OCTOBER 2024; PROVIDED, HOWEVER, THAT SAID AGREEMENT SHALL NOT BECOME EFFECTIVE UNTIL APPROVED BY THE CITY COUNCIL **(DISTRICT: ALL) (COMMUNITY SERVICES)**

Communtiy Services Director Cristina Burns gave a brief overview of the item noting they would like funds for the next five years. Midlands' portion would be $250,000.00 per year.

Abagail Davis, VisitMidland, gave a brief overview of the item noting they have run some economic impact numbers which came out to about 1.8 million in overall economic impact.

Reagan Hinojos, 201 N. Loop 250, spoke in favor of this item and the positive impact the Special Olympics has on individuals and the community.

John Norman moved to approve Motion No. 127-2023; seconded by Dan Corrales.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

20. 129-2023 – MOTION APPROVING WITH STAFF'S RECOMMENDED CONDITIONS A PROPOSED PRELIMINARY PLAT OF YMCA ADDITION, SECTION 1, BEING A PLAT OF A 25.195-ACRE TRACT OF LAND OUT OF SECTIONS 23 AND 24, BLOCK 40, T-1-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTHEAST CORNER OF THE INTERSECTION OF GOLDEN GATE DRIVE AND MOCKINGBIRD LANE) **(DISTRICT 4) (DEVELOPMENT SERVICES)**

Council Member Corrales made comments regarding infrastructure and making smart decisions when it comes to planning for growth in the City of Midland.

Assistant City Manager Jose Ortiz gave a brief overview of the item noting the changes that are coming and where these changes currently are with regard to the planning of the road maintenance work.

City Manager Tommy Gonzalez reported on how the strategic plan will assist with a comprehensive plan, five-year Capital Improvement Plan (CIP).

Brad Swindig, 4900 Kingsboro, Director of COM, spoke in favor of the YMCA and the work

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they do.

Mindy Hamm, 5801 Longhorn Lane, spoke in favor of this item and provided examples why.

Barbara Wood, 5500 Golden Gate Drive, has no problem with the YMCA but does have a problem with the current roadways in the area.

Andy Torres, 6413 W. Conchos Lane, reported he is not anti YMCA and spoke on what the YMCA did for him. However, he does not feel this is the right neighborhood for the new YMCA.

Stephen Brumley, 7100 West County Road 44, reported he is not against the YMCA but is against the location because of the noise and traffic it will bring.

Kylie Roman, 6606 Patriot Parkway, spoke in favor of the YMCA coming to this location due to the number of children that have to commute so far to get to the other facility.

Audrey Burkholder, 6406 Mockingbird Lane, spoke in opposition of this item due to traffic safety issues.

Allison King, 1212 Humble, spoke in favor of the YMCA to provide quality childcare for working moms.

Mason Burkholder, 6406 Mockingbird Lane, spoke in opposition of this item due to the traffic and wanting a safe environment for he and his little sister.

Dorota Anderson, 2608 Hughes St., spoke in favor of the YMCA coming to this location.

Jordan Fietz, 6507 Montero Lane, spoke in opposition of the YMCA coming to this location.

David Duree, 86 Shiloh, spoke in favor of this item.

Kathy Hobart, 6501 Montero Lane, spoke in opposition of this item for this location.

Gabriel Zertuche, 4322 Thomason Drive, spoke in favor of the YMCA in this location.

Kevin Hunstable, 1404 Bedford, spoke in opposition of this item due to lack of communication.

Mark Pace, 3 Deerfield Dr., spoke in favor of the YMCA in this location.

Elizabeth Harris-Jurado, 6022 Spahn St., is an employee of the YMCA and spoke in favor of this item.

Christine Bearden, 800 N. Big Spring, spoke in favor of the YMCA and its' afterschool program.

John Burkholder, 6406 Mockingbird Lane, spoke in opposition of this item due to safety

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concerns.

Devon Copeland, 4415 Northcrest Drive and Aquatics Director for the YMCA, spoke in favor of the item noting the need for water safety training.

Abby Borrego, 2513 Wyatt Way, works at the YMCA and spoke in favor of the item.

Amanda Torres, 6413 Los Conchos Lane, spoke against the location but not against the YMCA as a whole. Ms. Torres is concerned about traffic safety.

Brittany Roberts, 3907 Crestline Ave., spoke in favor of the YMCA. Ms. Roberts is also an employee of the YMCA.

Marissa Nally, 2817 Haynes Drive, spoke in favor of the YMCA and all it has done for herself and her children.

Nolan Bradshaw, 6515 Gladiola, provided several reasons he is speaking in opposition of the YMCA coming to this location.

Clint Williamson, 1410 Country Club Dr., spoke in favor of the YMCA coming to expand the Midland community.

Jessica Lindemood, 5213 Quicksand Dr., spoke in favor of the YMCA and the fact that they offer scholarships and other beneficial services.

Dean Snidow, 1204 Telluride Dr., current Chairman of the Board of Directors for the YMCA. Mr. Snidow spoke in favor of the YMCA and what the new location will bring to Midland.

Juan Coronado, 2301 Homeland Court, spoke in favor of the YMCA and all it does.

Edwin Jackson, 444 W. Pine, works for the YMCA and spoke in favor of it and all of the services it provides.

Cade Grigsby, 1311 Lawson Ave., spoke in favor of the YMCA coming to this location.

Zach Nygaard, 1805 Tennessee Ave., spoke in favor of the YMCA. Mr. Nygaard spoke on less drive time for the children and less downtown traffic.

Mireya Mendez, 2408 Cimmaron Ave., is currently the teen director of the YMCA and spoke in favor of the YMCA.

Maddi Meier, 1805 Tennessee, is the sports director at the YMCA and spoke in favor of the YMCA to expand in the North side of town.

Renee Page, future resident of Midland, spoke in favor of the YMCA coming to Midland.

Jodi Bradshaw, 6515 Gladiola, spoke in opposition of this item and reported on several issues such as pipelines running under the land.

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Lisa Jebson, 4415 Fairbanks Drive, spoke in favor of the YMCA coming to this location. Lisa is also an employee of the YMCA.

Amy Evans, 4506 Lenox, spoke in favor of the YMCA and all the YMCA has done for her.

Danny Ratliff, 6418 Chaps Lane, spoke in opposition of the YMCA from an engineering & common sense standpoint.

Bryan Williams, 417 E. Dormard, childcare coordinator at the YMCA, spoke in favor of the YMCA.

Beth Ryan, 1920 Centerview Lane, spoke in favor of the YMCA.

Assistant City Manager Jose Oritz reported there are conditions of the preliminary plat that need to be addressed prior to the final plat such as Mockingbird, Avalon and Goldengate. These streets need to be brought up to standards before the final plat can be approved.

Community Services Director Cristina Burns reported that childcare requires the use of an SUD.

Assistant City Manager Tina Jauz reported childcare over two hours per day may need to advance to the next step of an SUD.

Council Member Stretcher Burkes would like to have a discussion with the YMCA board as infrastructure can not chase development.

Jack Ladd moved to approve Motion No. 129-2023; seconded by Scott Dufford.

The motion passed by the following vote:
AYE: Poole, Blong, Dufford, Ladd, Norman
NAY: Stretcher Burkes, Corrales
ABSTAIN: None
ABSENT: None

21. 2023-154 – RESOLUTION ESTABLISHING A POLICY LIMITING ELIGIBILITY FOR SERVICE ON CITY BOARDS AND COMMISSIONS WITH FINAL DECISION-MAKING AUTHORITY **(LEGAL)**

Council Member Poole reported that she asked City Attorney John Ohnemiller to draw up a resolution limiting people from serving on more than one decision making board.

Robin Poole moved to approve Resolution No. 2023-154; seconded by Scott Dufford.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None



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**SECOND READINGS**

23. 10445 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITHOUT TERM FOR A 54.008-ACRE TRACT OF LAND OUT OF SECTION 42, BLOCK 40, T-1-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED APPROXIMATELY 1,550 FEET SOUTH OF STATE HIGHWAY 191, AND APPROXIMATELY 1,725 FEET EAST OF FARM-TO-MARKET ROAD 1788), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR AN INSTITUTION FOR THE CARE OF ALCOHOLIC, PSYCHIATRIC, OR NARCOTIC PATIENTS; MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION **(DISTRICT 4) (DEVELOPMENT SERVICES)** (FIRST READING HELD ON OCTOBER 10, 2023 )

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10445.

Scott Dufford moved to approve the second and final reading of Ordinance No. 10445; seconded by John Norman.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

24. 10446 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 55, BLOCK 8, 349 RANCH ESTATES, CITY AND COUNTY OF MIDLAND, TEXAS, FROM PD, PLANNED DEVELOPMENT DISTRICT FOR HOUSING DEVELOPMENT TO SF-1, SINGLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED EAST OF TEJAS, APPROXIMATELY 175 FEET WEST OF SIOUX COURT); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION **(DISTRICT 1) (DEVELOPMENT SERVICES)** (FIRST READING HELD ON OCTOBER 10, 2023 )

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10446.

Jack Ladd moved to approve the second and final reading of Ordinance No. 10446; seconded by John Norman.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

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25. 10447 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOTS 2 AND 3, LLANO ESTACADO ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS, FROM CE, COUNTRY ESTATE DISTRICT TO RR, REGIONAL RETAIL DISTRICT (GENERALLY LOCATED ON THE NORTH SIDE OF BRIARWOOD AVENUE, APPROXIMATELY 340 FEET WEST OF AVALON DRIVE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION **(DISTRICT 3) (DEVELOPMENT SERVICES)** (FIRST READING HELD ON OCTOBER 10, 2023 )

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10447.

Armando Arana, 6407 Aster Ave., spoke again against a Dollar Store coming to this location. Mr. Arana spoke at a previous Council Meeting.

The last time this item came to Council it didn't need a supermajority vote. Now, they have 54% of objections so it needs a supermajority.

Jack Ladd moved to approve the second and final reading of Ordinance No. 10447; seconded by Robin Poole.

The motion failed due to not having a supermajority by the following vote:
AYE: Poole, Dufford, Ladd, Norman
NAY: Stretcher Burkes, Corrales, Blong
ABSTAIN: None
ABSENT: None

**THIS ITEM FAILED DUE TO NOT HAVING A SUPERMAJORITY VOTE.**

## PUBLIC HEARINGS

The City Council will hold public hearings on the following items:

26. 10448 – AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS, PURSUANT TO CHAPTER 311 OF THE TEXAS TAX CODE, CREATING TAX INCREMENT FINANCING REINVESTMENT ZONE NUMBER TWO, CITY OF MIDLAND, TEXAS **(DISTRICT: 2 & 3) (COMMUNITY SERVICES)**

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10448.

Natalie Moore, TIRZ Consultant with David Pettit Economic Development LLC., provided a brief history of the Midland Downtown Tax Increment Reinvestment Zone (TIRZ) and is proposing TIRZ number two. Ms. Moore reviewed the creation process which Chapter 311 outlines. Ms. Moore reported on Development Projects, Projected Tax Revenue and Projected Annual Tax Revenue. Ms. Moore also proposed project cost for public utilities, parking and transit improvements, street and intersection improvements, pedestrian enhancements, open space, parks and recreation, economic development grants and administrative cost.



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Ms. Moore reported the proposed next steps will be the creation of an ordinance. There will also need to be a TIRZ Board consisting of 7 members appointed by the City Council which may include the Mayor and members of Council.

City Manager Tommy Gonzalez reported there have been discussions with the Hospital District, Midland County, Midland College and a meeting has been set up with MISD.

Ms. Moore also reported what it would look like if other taxing entities joined the TIRZ and future revenues.

City Manager Tommy Gonzalez reported this is also in conjunction with the Overlay District.

Council Member Ladd clarified that the City may have a second TIRZ if necessary to improve other areas. Council Member Ladd also thanked staff for the work they have done to report on this information.

Mayor Blong opened the public hearing at 2:32 p.m. There being no one present wishing to speak, the public hearing was immediately closed.

Jack Ladd moved to approve the first of two readings of Ordinance No. 10448; seconded by John Norman.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

27. 10449 – AN ORDINANCE VACATING AND ABANDONING A 0.138-ACRE PORTION OF ALLEY RIGHT-OF-WAY, LOCATED WITHIN BLOCK 127, SOUTHERN ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED SOUTH OF EAST KENTUCKY AVENUE, APPROXIMATELY 100 FEET WEST OF SOUTH LAMESA ROAD); ADOPTING THE APPRAISAL BY THE ASSISTANT CITY MANAGER OF $12,000.00; RETAINING A NONEXCLUSIVE UTILITY EASEMENT; AND ORDERING RECORDATION BY THE CITY SECRETARY **(DISTRICT 2) (DEVELOPMENT SERVICES)**

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10449.

Mayor Blong opened the public hearing at 2:33 p.m. There being no one present wishing to speak, the public hearing was immediately closed.

John Norman moved to approve the first of two readings of Ordinance No. 10449; seconded by Jack Ladd.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None

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ABSTAIN: None
ABSENT: None

28. 10450 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOTS 1 THROUGH 6 AND A 0.138-ACRE TRACT OF LAND, BLOCK 127, SOUTHERN ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF SOUTH LAMESA ROAD AND EAST KENTUCKY AVENUE), BY PERMITTING A METAL SCREENING FENCE IN LIEU OF A MASONRY SCREENING WALL; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION **(DISTRICT 2) (DEVELOPMENT SERVICES)**

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10450.

Community Services Director Cristina Burns gave a brief overview of the item noting it is related to item 27 that was just approved. The applicant would like a special exception to the required masonry fence so they don't have to build another fence. They have worked with the neighbors on this.

Mayor Blong opened the public hearing at 2:36 p.m. There being no one present wishing to speak, the public hearing was immediately closed.

John Norman moved to approve the first of two readings of Ordinance No. 10450; seconded by Scott Dufford.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

29. 10451 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 2, BLOCK 3, MELODY ACRES, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF TANFORAN AVENUE, APPROXIMATELY 200 FEET EAST OF ORIOLE DRIVE), BY PERMITTING A REDUCED MINIMUM LOT AREA; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION **(DISTRICT 4) (DEVELOPMENT SERVICES)** (DEFERRED FROM SEPTEMBER 26, 2023)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10451.

Community Services Director Cristina Burns gave a brief overview of the item noting this request is to change lot size. They would like to replat one lot into two in an AE District which requires a minimum of two acres. Staff has received several letters of rejection and is

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recommending denial.

Mayor Blong opened the public hearing at 1:04 p.m.

Don Neil, 4414 Tanforan, spoke in opposition of this item.

Shane Hoffman, 4709 Woodbar Court, owner of the property in question, spoke with several neighbors who didn't have a problem with what he would like to do with his property.

There being no one else wishing to speak, the public hearing was closed at 1:11 p.m.

Robin Poole moved to approve the first of two readings of Ordinance No. 10451.; seconded by Dan Corrales.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Norman
NAY: None
ABSTAIN: Ladd
ABSENT: None

**THIS ITEM PASSED BY A SUPERMAJORITY WHICH WAS NEEDED.**

30. 10452 – AN ORDINANCE VACATING AND ABANDONING A 0.42-ACRE PORTION OF NORTH N STREET RIGHT-OF WAY AND A 0.13-ACRE PORTION OF ALLEY RIGHT-OF-WAY, EACH LOCATED ADJACENT TO OR WITHIN BLOCK 11, HIGHLAND PARK ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED NORTH OF THE INTERSECTION OF NORTH N STREET AND WEST ILLINOIS AVENUE); ADOPTING THE APPRAISAL BY THE ASSISTANT CITY MANAGER OF $75,592.00; RETAINING A NONEXCLUSIVE UTILITY EASEMENT; AND ORDERING RECORDATION BY THE CITY SECRETARY **(DISTRICT 3) (DEVELOPMENT SERVICES)**

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10452.

Mayor Blong opened the public hearing at 2:37 p.m. There being no one present wishing to speak, the public hearing was immediately closed.

Scott Dufford moved to approve the first of two readings of Ordinance No. 10452; seconded by Dan Corrales.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

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**MISCELLANEOUS**

31. 10453 – AN ORDINANCE AMENDING TITLE XI, "PLANNING AND DEVELOPMENT" OF THE CITY CODE OF MIDLAND, TEXAS, BY ADDING CHAPTER 1A, "CENTENNIAL ENTERTAINMENT OVERLAY DISTRICT" SO AS TO ESTABLISH AN OVERLAY ZONING DISTRICT; ESTABLISHING PROVISIONS RELATED TO LAND USE AND DEVELOPMENT WITHIN SAID OVERLAY ZONING DISTRICT; AMENDING THE ZONING MAP; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ESTABLISHING AN EFFECTIVE DATE OF DECEMBER 1, 2023; AND ORDERING PUBLICATION **(DISTRICT: ALL) (DEVELOPMENT SERVICES)**

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10453.

Assistant City Manager Jose Ortiz reported no changes have been made since the presentation was done.

Mayor Blong reported there are a group of people with interest in the downtown area who will reach out to City staff for conversations.

City Manager Tommy Gonzalez reported on community updates he has received.

Dan Corrales moved to approve Ordinance No. 10453; seconded by Jack Ladd.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

32. MOTION MAKING APPOINTMENTS TO VARIOUS BOARDS AND COMMISSIONS **(DISTRICT: ALL) (CITY SECRETARY'S OFFICE)**

John Norman moved to appoint Michelle Evans to the Midland Housing Authority Commission; seconded by Dan Corrales.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

Robin Poole moved to appoint Neville Peyton to the Midland housing Authority Commission; seconded by Scott Dufford.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

DRAFT

Dan Corrales moved to reappoint Daniel Norwood and Joseph Sanchez to the Midland-Odessa Urban Transit District Board and to appoint Randall Milloy to the Midland-Odessa Urban Transit District Board to replace Brian Stubbs; seconded by John Norman.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

Scott Dufford moved to appoint Layton Hargesheimer to the Oil and Gas Advisory Committee to replace Court Adkins; seconded by Robin Poole.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

During the Planning & Zoning portion of appointments Lucy Sisnegia, Midland, spoke about her concerns as to why there was a delay in appointments and why she could not serve on the MDC board.

Council Member Ladd asked Ms. Sisnegia if she was reappointed to the Planning & Zoning Commission would she serve. Ms. Sisnegia asked if she could choose. Eventually, Ms. Sisnegia said yes.

Jack Ladd moved to reappoint Lucy Sisniega to the Planning and Zoning Commission; seconded by Scott Dufford.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

Amy Stretcher Burkes moved to appoint John Burkholder to the Planning and Zoning Commission to replace Diane Williams; seconded by Dan Corrales.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

Dan Corrales moved to appoint Brennan Berry to the Planning and Zoning Commission to replalce Zachary Deck; seconded by Robin Poole.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None

DRAFT

ABSTAIN: None
ABSENT: None

Dan Corrales moved to appoint Joshua Sparks to the Planning and Zoning Commission as an alternate to replace Beverly Dillow; seconded by Scott Dufford.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

Amy Stretcher Burkes moved to appoint Rachael Walker to the Zoning Board of Adjustment and Airport Zoning Board of Adjustment; seconded by Robin Poole.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

Robin Poole moved to appoint Elizabeth Moore to the Zoning Board of Adjustment and Airport Zoning Board of Adjustment; seconded by Amy Stretcher Burkes.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

Jack Ladd moved to appoint Elvie Brown to the Midland Development Cooperation; seconded by Scott Dufford.

The motion passed by the following vote:
AYE: Poole, Blong, Dufford, Ladd
NAY: Corrales
ABSTAIN: Stretcher Burkes, Norman
ABSENT: None

After all appointments were made, Heather Bredimus, 4013 Fairwood, requested an understanding of what happened during the Planning & Zoning portion of board appointments.

## PUBLIC COMMENT

33. Receive public comments where individuals may address the City Council on City related issues and projects not on the present agenda. Any deliberation of or decision by the City Council regarding the item being discussed shall be limited to a motion to place the item on the agenda for a subsequent meeting. (Please limit comments to three minutes or less.)

DRAFT

**EXECUTIVE SESSION**

34. Pursuant to Texas Government Code § 551.101, the City Council will hold an Executive Session, which is closed to the public, to discuss the following matters as permitted under the following sections of the Texas Government Code:

Mayor Blong recessed the Council Meeting to go into Executive Session at 1:12 p.m. The Council Meeting reconvened at 2:06 p.m picking up with item number 21.

a. Section 551.087, Deliberate Economic Development Negotiations

a.1. Discuss business prospects that the City seeks to have locate, stay, or expand in or near the City of Midland,
Texas, and discuss possible incentives.

All the business at hand having been completed, the meeting adjourned at 3:19 p.m.

PASSED AND APPROVED November 14, 2023.

_____
Lori Blong, Mayor

ATTEST:

_____
Marcia Bentley-German
City Governance Officer/City Secretary

DRAFT

**CITY OF MIDLAND, TEXAS**
**MIDLAND CITY COUNCIL**
**SPECIAL MINUTES**
**October 26, 2023**

The City Council convened in **Special** Session in the University of Texas of the Permian Basin C.E.E.D. Building, Midland, Texas, at 9:00 AM, Thursday, October 26, 2023.

| | |
|---|---|
| **Council Members present:** | Amy Stretcher Burkes, Dan Corrales, Robin Poole, Lori Blong, Scott Dufford, Jack Ladd, John Norman |
| **Council Members absent:** | None |
| **Staff members present:** | City Manager Tommy Gonzalez, City Attorney John Ohnemiller, Deputy City Manager Morris Williams Jr., Assistant City Manager Tina Jauz, Assistant City Manager Jose Ortiz |

The meeting was called to order at 9:20 a.m.

**SPECIAL SESSION**

1. The City Council will meet with City Staff in a workshop to discuss and consider City governance, management, operations, policies, protocols, strategic planning, and priorities. The City Council may discuss issues related to streets, roads, and water and sewer infrastructure; water supply and resources; parks and recreation; community services; public health and safety; land use and development; economic development; personnel; airports; technology; solid waste management; real property acquisition and disposition; and oil and gas development and regulation. The City Council may develop and prioritize actions and goals in connection with the foregoing matters.

   Mayor Blong opened the meeting with a statement on “what is politics”.

   Dr. Mac McGuire, CEO, Quality Texas, and Philip Huntley, Chief Transformation Officer for the City of Midland both introduced themselves.

   Dr. McGuire, City Manager Tommy Gonzalez and Mr. Huntley made up the Presentation team.

   City Manager Tommy Gonzalez reported on succession planning & implementation, animal services restructuring, water billing restructuring & action plan, focus groups for customer service, reestablishing the TIRZ, and the one-stop-shop.

   Council Member Corrales would like to revisit the 5 year plan at least yearly.

DRAFT

Dr. McGuire discussed the Value of Strategic Planning and High-performance workforce training such as Balridge Organizational Leadership Examiner Training, Baldridge Leadership Development Seminar and TMAC Lean Six Sigma.

Phillip Huntley reported on best practices in several areas that would provide improvements in the overall function of the organization.

Council moved to approve the City of Midland Strategic Plan for 2024 through 2029 in it's entirety which is listed below:

**Core Values:**
• **Commitment**: Duty to the public good.
• **Engagement**: Foster partnerships and collaboration.
• **Excellence**: Practice continuous improvement.
• **Innovation**: Embrace creativity and cutting-edge solutions.
• **Integrity**: Operate with transparency and accountability.
• **Inclusivity**: Ensure all voices are heard and valued.

**Key Focus Areas:**
**Communication**
**Customer Service**
**Economic Development**
**Fiscal Responsibility & Accountability**
**High-Performing City Team**
**Legislation**
**Quality of Place**
**Technology Improvements**

**Strategic Priorities:**
**1. Strong Economy with More Quality Jobs**
Goals:
• **Increase the Midland Sales Tax Base**: Develop strategies to expand the tax base by attracting businesses and supporting local commerce.
• **Enhance visitor revenue opportunities**: Boost tourism through marketing and infrastructure improvements.
• **Continue Downtown and West Midland Redevelopment**: Promote revitalization efforts for a vibrant downtown.
• **Nurture Development Districts**: Establish key action plans honed to enhance Development Districts.
• **Grow the core business of air transportation**: Develop and transform the Midland airport system.
• **Diversify Midland's Economy**: Support initiatives that diversify the local economy and enhance resilience.
• **Expand opportunities and programming for general and small business**: Foster the growth, retention, and expansion of local small businesses as well as business in general.

DRAFT

• **Improve Speed to Market for citizens, builders, developers, and contractors**: Reduce wait times for permit review/approval and inspection process of permitted work.
• **Establish our community as a premier destination for retail and entertainment**: Offer unique and compelling experiences that draw visitors, ultimately driving economic growth and community vibrancy, while increasing tourism and business development.

**2. Set the Standard for a Safe and Secure City**
Goals:
• **Be the safest city in West Texas**: Enhance public safety programs.
• **Improve pedestrian and motorist safety**: Invest in traffic management and infrastructure.
• **Implement effective code enforcement strategies**: Address nuisances to improve overall health and safety.
• **Revitalize neighborhoods**: Utilize best practices to support the redevelopment of neighborhoods.
• **Enhance animal services**: Ensure the welfare of pets and wildlife in the city.
• **Grow and retain public safety resources**: Expand law enforcement presence and fire reduction & prevention programs while reducing attrition.

**3. Quality of Life and Place**
Goals:
• **Enhance Community Engagement**: Champion innovative recreational, educational, and cultural programs that enrich residents' lives in partnership with the business community.
• **Foster relationships with foundations and outside businesses**: Collaborate to create world-class facilities and amenities.
• **Create an attractive and inclusive living environment**: Develop and enhance live, work, and play opportunities for our citizens.
• **Establish beautification programs**: Implement initiatives to make the community clean and bright.
• **Nurture and promote a healthy community**: Increase healthy community living and education opportunities for citizens of all ages.
• **Build the best parks system in our region**: Offer diverse, accessible, and enjoyable green spaces, tournament ready ball fields, safe playgrounds, and unique recreational opportunities that enhance the quality of life/quality of place for our community.

**4. Transparent & Consistent Communication**
Goals:
• **Set a climate of respect, collaboration, and team spirit**: Cultivate a culture of openness and respect.
• **Enhance communication efficiency and effectiveness**: Leverage and expand the use of technology to facilitate the exchange of information.
• **Enhance internal communication and employee engagement**: Strengthen information flow and collaboration among city staff.
• **Advance two-way communication of key messages**: Engage effectively with external stakeholders; foster community engagement.

DRAFT

• **Strengthen messaging opportunities through various media outlets**: Communicate the city's achievements and initiatives.

**5. Provide Sound Governance & Fiscal Management**
Goals:
• **Recruit and retain a skilled and diverse workforce**: Invest in talent and diversity; grow our local pipeline of skilled employees.
• **Enhance Citizen Experience**: Improve employee working conditions to better serve citizens.
• **Hone Public Servant Proficiency**: Cultivate a culture of professional growth, skilled mastery, and information exchange.
• **Implement cutting-edge practices**: Harness automation and Artificial Intelligence technology for efficient resource utilization.
• **Promote a well-balanced customer service philosophy**: Consistently deliver excellent service to residents.
• **Deliver services timely and efficiently**: Prioritize continuous improvement.
• **Ensure continued financial stability and accountability**: Maintain financial transparency.
• **Deliver effective and efficient processes**: Maximize value in procurement.
• **Ensure reliability and safety**: Maintain existing assets and develop new city asset opportunities, including parks and other facilities with a standard of excellence.
• **Create a work environment that supports bleeding-edge practices**: Encourage bleeding-edge practice that then cultivates an environment where employees can learn from their experiences and improve processes; thus, becoming a learning organization.

**6. Strengthen and Sustain our Infrastructure**
Goals:
• **Provide reliable and sustainable utilities**: Guarantee water supply and distribution systems security and longevity.
• **Enhance infrastructure for economic growth**: Improve competitiveness through infrastructure investments that includes collaboration with neighboring jurisdictions and exemplary peer agencies.
• **Streamline and consolidate City Facilities**: Create synergy for improved services.
• **Standardize infrastructure processes across the city**: Ensure consistency, timeliness, and accountability in infrastructure development.
• **Implement a funding stream for infrastructure**: Establish reliable funding for continual improvements.
• **Strategize for and monitor City Growth**: Develop proactive responses to growth rather than reactive.
• **Develop and Implement Comprehensive Road Planning and Maintenance Initiatives**: Ensure safe and maintained roads for existing and new developing areas and main thoroughfares.

**Conclusion**: The City of Midland's strategic plan is a roadmap for creating a prosperous and vibrant community. Together, we will achieve these goals and continue building a city that we are proud to call home.

DRAFT

**Vision Statement**:
The City of Midland will be the premier and safest city in West Texas by providing world-class municipal services through operational excellence and a culture of innovation.

**Mission Statement**:
Deliver exceptional services and promote a high quality of life and place for ALL our citizens.

**Guiding Principles: I-FORCE**
- **Integrity**
- **Financial Stewardship**
- **Outstanding Service**
- **Respect**
- **Collaboration**
- **Excellence**

**Slogan and Logo:**
**Feel (Crossed-Out)> "Be The Energy"**

2. 130-2023 – Motion approving the City of Midland Strategic Plan for fiscal year 2024 and beyond (DISTRICT: ALL) (CITY MANAGER)

Dan Corrales moved to approve Motion No. 130-2023; seconded by John Norman.

The motion passed by the following vote:
AYE: Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

All the business at hand having been completed, the meeting adjourned at 12:44 p.m.

PASSED AND APPROVED November 14, 2023.

Lori Blong, Mayor

ATTEST:

Marcia Bentley-German
City Governance Officer/City Secretary

DRAFT

# City Council Meeting

**Item Number:** 5

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Christy Weakland, Director

**Subject:** RESOLUTION CASTING THE CITY OF MIDLAND'S VOTES FOR DIRECTORS OF THE MIDLAND CENTRAL APPRAISAL DISTRICT FOR ROBERT MCNAUGHTON; AND DIRECTING THE CITY MANAGER OR THE CITY MANAGER'S DESIGNEE TO FILE THE APPROPRIATE DOCUMENTS (DISTRICT: NONE) (FINANCE)

---

**Purpose:**

This is to determine how the City of Midland would like to cast their votes for the MCAD Board of Directors.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

None.

**Discussion:**

Elections for MCAD Board of Directors occurs biannually on odd numbered years. Midland City Council appointed Robert McNaughton as their nominee for the Board of Directors for 2024-2025. The City of Midland has been provided 524 out of 5,000 votes, based on the tax levy dollars managed by MCAD. The Council must review the ballot and determine how to distribute the votes among the five candidates.

Morris Williams Jr.

City Manager's Office

**RESOLUTION NO. _____**

**RESOLUTION CASTING THE CITY OF MIDLAND'S VOTES FOR DIRECTORS OF THE MIDLAND CENTRAL APPRAISAL DISTRICT FOR ROBERT MCNAUGHTON; AND DIRECTING THE CITY MANAGER OR THE CITY MANAGER'S DESIGNEE TO FILE THE APPROPRIATE DOCUMENTS**

**WHEREAS**, pursuant to the Tax Code procedure for the election of the directors for the Midland Central Appraisal District, it has been determined by the Chief Appraiser that the City of Midland is entitled to 524 votes; and

**WHEREAS**, the City Council of the City of Midland agrees to proceed with the concept of a five member Board of Directors of the Midland Central Appraisal District; and

**WHEREAS**, the Council finds and determines that it should cast the City's votes for the candidate nominated for the Board of Directors by the City;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the City of Midland hereby casts 524 votes for Robert McNaughton for the office of Director of the Midland Central Appraisal District.

**SECTION TWO.** That the City Manager or the City Manager's designee is hereby authorized and directed to indicate this action on the official ballot received from the Chief Appraiser of the Midland Central Appraisal District and to promptly deliver said ballot, together with a certified copy of this resolution, to the Chief Appraiser.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Christy Weakland, Director of Finance

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

**RESOLUTION NO. _____**

**RESOLUTION CASTING THE CITY OF MIDLAND'S VOTES FOR DIRECTORS OF THE MIDLAND CENTRAL APPRAISAL DISTRICT FOR ROBERT MCNAUGHTON; AND DIRECTING THE CITY MANAGER TO FILE THE APPROPRIATE DOCUMENTS**

**WHEREAS**, pursuant to the Tax Code procedure for the election of the directors for the Midland Central Appraisal District, it has been determined by the Chief Appraiser that the City of Midland is entitled to 524 votes; and

**WHEREAS**, the City Council of the City of Midland agrees to proceed with the concept of a five member Board of Directors of the Midland Central Appraisal District; and

**WHEREAS**, the Council finds and determines that it should cast the City's votes for the candidate nominated for the Board of Directors by the City;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the City of Midland hereby casts 524 votes for Robert McNaughton for the office of Director of the Midland Central Appraisal District.

**SECTION TWO.** That the City Manager is hereby authorized and directed to indicate this action on the official ballot received from the Chief Appraiser of the Midland Central Appraisal District and to promptly deliver said ballot, together with a certified copy of this resolution, to the Chief Appraiser.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Christy Weakland, Director of Finance

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

MIDLAND CENTRAL APPRAISAL DISTRICT
4631 ANDREWS HWY.
P. O. BOX 908002 MIDLAND, TEXAS 79708-0002
(432) 699-4991 FAX (432) 689-7185

JERRY BUNDICK
RPA, RTA
Chief Appraiser

October 23, 2023

Mayor Lori Blong
City of Midland
P O Box 1152
Midland, TX 79702

RE: Election of Board of Directors for Midland Central Appraisal District

Dear Mayor Blong:

Enclosed please find an Official Ballot and a (sample) Resolution for the election of the Board of Director members for the Midland Central Appraisal District.

Each voting unit must cast its vote by written Resolution and submit it to the Chief Appraiser before December 15, 2023. The unit may cast its votes among any number of candidates. A voting unit must cast its votes for a person nominated and named on the ballot. There is no provision for write-in candidates. The five individuals with the most votes will be elected to the Board of Directors.

If you have any questions, please do not hesitate to contact me. Thank you.

Respectfully,

Jerry Bundick, RPA,RTA
Chief Appraiser

cc: Mr. Tommy Gonzalez, City Manager
Ms. Christy Weakland, Director of Finance

# OFFICIAL BALLOT

**BOARD OF DIRECTOR ELECTIONS FOR 2024-2025**
**MIDLAND CENTRAL APPRAISAL DISTRICT**
**MIDLAND COUNTY, TEXAS**

**The jurisdiction may cast all of its votes for one candidate or distribute the votes among any of the candidates listed below. There is not a provision for write-in candidates. Please write in the number of votes for each candidate and attach this ballot to your written resolution.**

**Each jurisdiction has the following number of votes**

| | |
|---|---|
| MIDLAND INDEPENDENT SCHOOL DISTRICT | 3,209 |
| CITY OF MIDLAND | 524 |
| MIDLAND COUNTY | 527 |
| GREENWOOD INDEPENDENT SCHOOL DISTRICT | 443 |
| MIDLAND COLLEGE | 297 |
| TOTAL | 5,000 |

| | CANDIDATES | NUMBER OF VOTES |
|---|---|---|
| COUNTY | BOUNDS, WESLEY | |
| MISD | COOKE, KELLY | |
| MISD | KENNEDY, JOHN | |
| MISD | KMIEC, ROBERT | |
| MC | LYNCH, SCOTT | |
| CITY | MCNAUGHTON, ROBERT | |

*NOTE: NAMES ARE LISTED ON THE BALLOT, ALPHA BY SIR NAME, AS REQUIRED BY PTC, Sec 6.03(i)

# City Council Meeting

**Item Number:** 6

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Erika Martinez, Manager, Purchasing

**Subject:** RESOLUTION AUTHORIZING THE PURCHASE OF A TWO YEAR RENEWAL OF MAINTENANCE FOR THE EXISTING FIREWALL DEVICES AND ANTIVIRUS SOFTWARE THROUGH THE TEXAS DEPARTMENT OF INFORMATION RESOURCES FROM CDW GOVERNMENT LLC AT A TOTAL COST OF $248,803.28 (DISTRICT: NONE) (GENERAL SERVICES)

---

**Purpose:**

Resolution approving the purchasing of two (2) year renewal of the Security Automation Platform License and Maintenance for the Information Technology Systems Department from CDW Government LLC, through the Texas Department of Information Resources (DIR) contract DIR-TSO-4315at a total cost of $248,803.28.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

Funding is available in the Technology Fund 2024 operating budget.

**Discussion:**

Staff recommends purchasing of two (2) year renewal of the Security Automation Platform License and Maintenance for the Information Technology Systems Department from CDW Government LLC, through the Texas Department of Information Resources (DIR) contract DIR-TSO-4315. We are members of this cooperative and Subchapter F, Section 271.102 of the Local Government Code provides that a local government may participate in a cooperative purchasing program and that purchasing goods or services under Subchapter F satisfies any state law requiring the local government to seek competitive bids for those purchases. Please see the attached memo from Jennifer Frescaz, Chief Information Officer, for additional information.

Therefore, please consider a resolution approving the purchase of two (2) year renewal of the Security Automation Platform License and Maintenance for the Information Technology Systems Department from CDW Government LLC of Vernon Hills, Illinois through the Texas Department of Information Resources (DIR) at a total cost of $248,803.28.

Morris Williams Jr.

City Manager's Office

# City Council Agenda Item

**DATE:** **October 30, 2023**

**TO:** Erika Munoz, Purchasing Manager

**FROM:** Jennifer Frescaz, Chief Information Officer

**SUBJECT:** Consider a resolution to approve the purchase of a two-year renewal of the Security Automation Platform License and Maintenance for $248,803.28 from CDW-Government LLC via DIR-TSO-4315.

---

**Purpose:**
Consider a resolution to approve the purchase of a two-year renewal of the Security Automation Platform License and Maintenance for $248,803.28 from CDW-Government LLC via DIR-TSO-4315.

**Discussion:**
We are requesting approval for the renewal of our existing Security Automation Platform License and Maintenance for the next two years. This platform plays a vital role in our cybersecurity operations and has consistently proven its value. It automate complex security tasks, resulting in a significant reduction in monthly tickets, enhanced incident response efficiency, and cost-effectiveness.

The user-friendly interface of the automation platform ensures that our cybersecurity team can respond swiftly to security incidents, contributing to safeguarding the operational continuity of the City of Midland. Its continued use is critical for our ongoing commitment to maintaining a secure environment.

The cost of the license and maintenance renewal is budgeted in the Technology Fund. The total cost of the two-year renewal is $248,803.28.

**RESOLUTION NO. _____**

**RESOLUTION AUTHORIZING THE PURCHASE OF A TWO YEAR RENEWAL OF MAINTENANCE FOR THE EXISTING FIREWALL DEVICES AND ANTIVIRUS SOFTWARE THROUGH THE TEXAS DEPARTMENT OF INFORMATION RESOURCES FROM CDW GOVERNMENT LLC AT A TOTAL COST OF $248,803.28**

**WHEREAS**, the Texas Department of Information Resources ("DIR") is a cooperative program in which the City participates on purchases; and

**WHEREAS**, CDW Government LLC has agreed to provide a two year renewal of maintenance for the existing firewall devices and antivirus software through the DIR at a total cost of $248,803.28; and

**WHEREAS**, the City Council finds the price proposed for the purchase of a two year renewal of maintenance for the existing firewall devices and antivirus software through the DIR to be fair and reasonable; and

**WHEREAS**, the City Council finds it to be in the public interest to authorize the purchase of a two year renewal of maintenance for the existing firewall devices and antivirus software through the DIR from CDW Government LLC;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the City Manager is hereby authorized and directed to purchase of a two year renewal of maintenance for the existing firewall devices and antivirus software through the DIR from CDW Government LLC at a total cost of $248,803.28.

**SECTION TWO.** That funding shall be available in the Technology Fund 2024 operating budget.

**SECTION THREE.** That the City Comptroller is hereby authorized and directed to pay CDW Government LLC upon receipt of proper invoices approved by the City Manager.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the

City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

# QUOTE CONFIRMATION

**GORGEES ESKANDER,**

Thank you for considering CDW•G for your technology needs. The details of your quote are below. **If you are an eProcurement or single sign on customer, please log into your system to access the CDW site.** You can search for your quote to retrieve and transfer back into your system for processing.

For all other customers, click below to convert your quote to an order.

**Convert Quote to Order**

| QUOTE # | QUOTE DATE | QUOTE REFERENCE | CUSTOMER # | GRAND TOTAL |
|---|---|---|---|---|
| NPPR625 | 10/17/2023 | [redacted] RENEWAL | [redacted] | $248,803.28 |

**IMPORTANT - PLEASE READ**

**Special Instructions:** SN: [redacted]
Term Dates: 10/18/2023-10/18/2025

**QUOTE DETAILS**

| ITEM | QTY | CDW# | UNIT PRICE | EXT. PRICE |
|---|---|---|---|---|
| NEW ITEM<br>Contract: DIR-TSO-4315<br>[redacted]<br>For US Government accounts only. | 1 | NEW-ITEM | $59,017.00 | $59,017.00 |
| [redacted] - license - 2 users<br>Mfg. Part#: [redacted]<br>TIM, 2 named users) for Enterprise.<br>Electronic distribution - NO MEDIA Contract: DIR-TSO-4315 | 1 | 5882281 | $123,011.00 | $123,011.00 |
| [redacted] Hosting Fees Enterprise<br>[redacted]<br>Includes 1 prod server with 16vCPU/32 GB RAM and scale of 5k incidents per day and 1 dev server with 8vCPU/16 GB RAM and scale of 1k incident<br>Electronic distribution - NO MEDIA Contract: DIR-TSO-4315 | 1 | 5893304 | $21,124.00 | $21,124.00 |
| [redacted] - license - 1 full user<br>[redacted]<br>Electronic distribution - NO MEDIA | 2 | 5882270 | $19,682.00 | $39,364.00 |

| QUOTE DETAILS (CONT.) | | | | |
|---|---|---|---|---|
| Contract: DIR-TSO-4315 | | | | |
| [redacted] - NO MEDIA Contract: DIR-TSO-4315 | 1 | 7586541 | $6,287.28 | $6,287.28 |

| | |
|---|---|
| **SUBTOTAL** | $248,803.28 |
| **SHIPPING** | $0.00 |
| **SALES TAX** | $0.00 |
| **GRAND TOTAL** | **$248,803.28** |

| PURCHASER BILLING INFO | DELIVER TO |
|---|---|
| **Billing Address:**<br>CITY OF MIDLAND<br>ACCOUNTS PAYABL<br>PO BOX 1152<br>MIDLAND, TX 79702-1152<br>**Phone:** (432) 685-7108<br>**Payment Terms:** Net 30 Days-Govt State/Local | **Shipping Address:**<br>CITY OF MIDLAND<br>INFORMATION SYSTEMS ADMIN<br>601 N LORAINE ST STE 101<br>MIDLAND, TX 79701-4743<br>**Shipping Method:** |
| | **Please remit payments to:** |
| | CDW Government<br>75 Remittance Drive<br>Suite 1515<br>Chicago, IL 60675-1515 |



## Sales Contact Info

**Alyssa McArthur-Guzman** | (877) 621-3156 | alysmca@cdwg.com

| LEASE OPTIONS | | | |
|---|---|---|---|
| **FMV TOTAL** | **FMV LEASE OPTION** | **BO TOTAL** | **BO LEASE OPTION** |
| **$248,803.28** | **$6,603.24/Month** | **$248,803.28** | **$7,645.72/Month** |

Monthly payment based on 36 month lease. Other terms and options are available. Contact your Account Manager for details. Payment quoted is subject to change.

Why finance?

• Lower Upfront Costs. Get the products you need without impacting cash flow. Preserve your working capital and existing credit line.

• Flexible Payment Terms. 100% financing with no money down, payment deferrals and payment schedules that match your company's business cycles.

• Predictable, Low Monthly Payments. Pay over time. Lease payments are fixed and can be tailored to your budget levels or revenue streams.

• Technology Refresh. Keep current technology with minimal financial impact or risk. Add-on or upgrade during the lease term and choose to return or purchase the equipment at end of lease.

• Bundle Costs. You can combine hardware, software, and services into a single transaction and pay for your software licenses over time! We know your challenges and understand the need for flexibility.

General Terms and Conditions:

This quote is not legally binding and is for discussion purposes only. The rates are estimate only and are based on a collection of industry data from numerous sources. All rates and financial quotes are subject to final review, approval, and documentation by our leasing partners. Payments above exclude all applicable taxes. Financing is subject to credit approval and review of final equipment and services configuration. Fair Market Value leases are structured with the assumption that the equipment has a residual value at the end of the lease term.

## Need Help?

 My Account

 Support

 Call 800.800.4239

About Us | Privacy Policy | Terms and Conditions

This order is subject to CDW's Terms and Conditions of Sales and Service Projects at
http://www.cdwg.com/content/terms-conditions/product-sales.aspx
For more information, contact a CDW account manager

© 2023 CDW•G LLC, 200 N. Milwaukee Avenue, Vernon Hills, IL 60061 | 800.808.4239

# City Council Meeting

**Item Number:** 7

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Erika Martinez, Manager, Purchasing

**Subject:** RESOLUTION AUTHORIZING PURCHASE OF A KOMATSU EXCAVATOR AND ASSOCIATED ATTACHMENTS FROM KIRBY-SMITH MACHINERY, INC., THROUGH BUYBOARD FOR A TOTAL COST OF $396,151.30 (DISTRICT: NONE) (GENERAL SERVICES)

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**Purpose:**

Resolution for the purchase of one (1) Komatsu Excavator from Kirby Smith Machinery through Buyboard contract 687-22 for a total cost of $396,151.30 for the Transportation Division for the Garage Division.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

Funding is available in the General Fund 2024 operating budget.

**Discussion:**

Staff is recommending the purchase of one (1) Komatsu Excavator from Kirby Smith Machinery through Buyboard contract 687-22. We are members of this cooperative and Subchapter F, Section 271.102 of the Local Government Code provides that a local government may participate in a cooperative purchasing program and that purchasing goods or services under Subchapter F satisfies any state law requiring the local government to seek competitive bids for those purchases. This will be an addition to the fleet. Please see attached memo from Manuel Salinas, Garage Superintendent, for additional information.

Therefore, please consider a resolution approving the purchase of one (1) Komatsu Excavator from Kirby Smith Machinery of Oklahoma City, OK through Buyboard contract 687-22 for a total

cost of $396,151.30 .

Morris Williams Jr.

City Manager's Office

# Fleet Services Division

**INTEROFFICE MEMORANDUM**

**TO: Regina Stephenson**

**FROM: Manuel Eloy Salinas**

**SUBJECT: Buy Board Contract #687-22 Komatsu PC360LC-11 2022 Model**

**DATE: 9/22/2023**

**Fleet Service is requesting for the purchase of (1) one Komatsu Excavator. This Komatsu Excavator will be a new addition to the fleet and will be used to help dig and move materials from road construction. Budgeted amount for FY2024 is $435,767 for the purchasing of (1) one Komatsu Excavator. The purchasing amount that is being offered through the Buy Board contract #687-22 by Kirby Smith Machinery Inc. is $396,151.30 for (1) one Komatsu PC360LC-11 Excavator.**

**Sincerely,**

**Manuel Eloy Salinas**

**City of Midland Superintendent**

**RESOLUTION NO. _____**

**RESOLUTION AUTHORIZING PURCHASE OF A KOMATSU EXCAVATOR AND ASSOCIATED ATTACHMENTS FROM KIRBY-SMITH MACHINERY, INC., THROUGH BUYBOARD FOR A TOTAL COST OF $396,151.30**

**WHEREAS**, Buyboard is a cooperative purchasing agency with which the City participates with on purchases through a cooperative purchasing program in accordance with TEX. LOC. GOV'T CODE § 271.102; and

**WHEREAS**, Kirby-Smith Machinery, Inc., submitted a total cost of $396,151.30 for the purchase of a Komatsu excavator and associated attachments through Buyboard as shown on the quote attached hereto as Exhibit A, which is incorporated herein for all purposes; and

**WHEREAS**, the City Council finds the price proposed for the purchase of a Komatsu excavator and associated attachments to be fair and reasonable; and

**WHEREAS**, the City Council finds it to be in the public interest to authorize the purchase of a Komatsu excavator and associated attachments from Kirby-Smith Machinery, Inc., through Buyboard;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE**. That the City Manager is hereby authorized and directed to purchase of a Komatsu excavator and associated attachments from Kirby-Smith Machinery, Inc., through Buyboard for a total cost of $396,151.30.

**SECTION TWO**. That the City Comptroller is hereby authorized and directed to pay Kirby-Smith Machinery, Inc., $396,151.30 for said Komatsu excavator and associated attachments from funds available in the General Fund 2024 operating budget upon receipt of proper invoices or statements approved by the City Manager.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by

the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

APPROVED AS TO FORM ONLY:

_____
John Ohnemiller, City Attorney

**9/13/2023**
**Quote #: swhitley-1276**

Abraham Langston
CITY OF MIDLAND
Po Box 1152
Midland, TX 79702

Dear Abraham Langston:

We are pleased to quote the following for your consideration:
**KOMATSU PC360LC-11 2022 model w/ 0 hours, Unit # N.I.S., S/N Factory Order.**

The following Factory and Dealer Options are included in the package:

- **KOMATSU PC360LC-11**
- **REVOLVING FRAME UNDERCOVER STD.**
- **TRACK ROLLER GUARDS**

The following Attachments are included:

- **48" Bucket**
- **Hydraulic Coupler**
- **Hydraulic Kit**
- **Pro Link Thumb**

**Additional Details:**

| | |
|---|---|
| **Sales Price:** | **$396,151.30** |
| **Sub Total:** | **$396,151.30** |
| **Total Price:** | **$396,151.30** |

**Subject to all applicable taxes. If taxes listed above, Total Price is Sales plus applicable taxes**

***To be purchased through BuyBoard. Contract # 687-22***

We believe the equipment as quoted will exceed your expectations. On behalf of Kirby-Smith Machinery, Inc., thank you for the opportunity to quote you this package.

Sincerely,

Shelby Whitley
Governmental Territory Manager
Kirby-Smith Machinery, Inc.
Phone: 432-333-7000
Cell: 432-241-2915

Email: swhitley@kirby-smith.com

**9/13/2023**
**Quote #: swhitley-1276**

Abraham Langston
CITY OF MIDLAND
Po Box 1152
Midland, TX 79702

Dear Abraham Langston:

We are pleased to quote the following for your consideration:
**KOMATSU PC360LC-11 2022 model w/ 0 hours, Unit # N.I.S., S/N Factory Order.**

The following Factory and Dealer Options are included in the package:

- **KOMATSU PC360LC-11**
- **REVOLVING FRAME UNDERCOVER STD.**
- **TRACK ROLLER GUARDS**

The following Attachments are included:

- **48" Bucket**
- **Hydraulic Coupler**
- **Hydraulic Kit**
- **Pro Link Thumb**

**Additional Details:**

| | |
|---|---|
| **Sales Price:** | **$396,151.30** |
| **Sub Total:** | **$396,151.30** |
| **Total Price:** | **$396,151.30** |

**Subject to all applicable taxes. If taxes listed above, Total Price is Sales plus applicable taxes**

***To be purchased through BuyBoard. Contract # 687-22***

We believe the equipment as quoted will exceed your expectations. On behalf of Kirby-Smith Machinery, Inc., thank you for the opportunity to quote you this package.

Sincerely,

Shelby Whitley
Governmental Territory Manager
Kirby-Smith Machinery, Inc.
Phone: 432-333-7000
Cell: 432-241-2915




Email: swhitley@kirby-smith.com

# City Council Meeting

**Item Number:** 8

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Erika Martinez, Manager, Purchasing

**Subject:** RESOLUTION AUTHORIZING THE PURCHASE OF A POWER PAVER, POWER CURBER, AND ASSOCIATED EQUIPMENT FROM CORNWELL CAPITAL II DBA POWER CURBERS COMPANIES LLC THROUGH THE EQUALIS GROUP PURCHASING PROGRAM FOR A TOTAL COST OF $990,650.00 (DISTRICT: NONE) (GENERAL SERVICES)

---

**Purpose:**

Resolution for the purchase of one (1) power paver and one (1) power curber from Cornwell Capital II LLC dba Power Curbers Companies LLC through Equalis Group contract #R101103A for a total cost of $990,650.00 for the Transportation Division for the Garage Division.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

Funding is available in the General Fund 2024 operating budget.

**Discussion:**

Staff is recommending the purchase of one (1) power paver and one (1) power curber from Cornwell Capital II LLC dba Power Curbers Companies LLC through Equalis Group contract #R101103A. We are members of this cooperative and Subchapter F, Section 271.102 of the Local Government Code provides that a local government may participate in a cooperative purchasing program and that purchasing goods or services under Subchapter F satisfies any state law requiring the local government to seek competitive bids for those purchases. This will be an addition to the fleet. Please see attached memo from Manuel Salinas, Garage Superintendent, for additional information.

Therefore, please consider a resolution approving the purchase of one (1) power paver and one (1) power curber from Cornwell Capital II LLC dba Power Curbers Companies LLC through Equalis Group contract #R101103A for a total cost of $990,650.00.

Morris Williams Jr.

City Manager's Office

# Fleet Services Division

**INTEROFFICE MEMORANDUM**

**TO: Regina Stephenson**

**FROM: Manuel Eloy Salinas**

**SUBJECT: Equalis Group: PaveConnect Contract #R101103A**

**DATE: 10/12/2023**

**Fleet Services is requesting the purchase of the following equipment which will be new additions for the Transportation Department.**

**(1) one 2023 Power Pavers SF-2700 Concrete Paver, budgeted amount for FY2024 is $706,640. The purchasing amount offered is $642,400.**

**(1) one 2023 Power Curbers 5700-D Curb & Gutter Paver, budgeted amount for FY2024 is $383,100. The purchasing amount being offered is $348,250.**

**Budgeted amount for FY2024 for these 2 items is $1,089,740, the purchasing amount offered is $990,650 through Equalis Group: PaveConnect Contract #R101103A.**

**Sincerely,**

**Manuel Eloy Salinas**

**City of Midland Superintendent**

**RESOLUTION NO. _____**

**RESOLUTION AUTHORIZING THE PURCHASE OF A POWER PAVER, POWER CURBER, AND ASSOCIATED EQUIPMENT FROM CORNWELL CAPITAL II DBA POWER CURBERS COMPANIES LLC THROUGH THE EQUALIS GROUP PURCHASING PROGRAM FOR A TOTAL COST OF $990,650.00**

**WHEREAS**, the Equalis Group Purchasing Program is a cooperative purchasing agency with which the City participates with on purchases through a cooperative purchasing program in accordance with TEX. LOC. GOV'T CODE § 271.102; and

**WHEREAS**, Cornwell Capital II LLC dba Power Curbers Companies LLC submitted a total cost to the City of $990,650.00 for the purchase of a power paver, power curber, and associated equipment through the Equalis Group Purchasing Program as shown on the quote attached hereto as Exhibit A, which is incorporated herein for all purposes; and

**WHEREAS**, the City Council finds the price proposed for the purchase of a power paver, power curber, and associated equipment to be fair and reasonable; and

**WHEREAS**, the City Council finds it to be in the public interest to authorize the purchase of a power paver, power curber, and associated equipment from Cornwell Capital II LLC dba Power Curbers Companies LLC through the Equalis Group Purchasing Program;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE**. That the City Manager is hereby authorized and directed to purchase of a power paver, power curber, and associated equipment from Cornwell Capital II LLC dba Power Curbers Companies LLC through the Equalis Group Purchasing Program for a total cost of $990,650.00.

**SECTION TWO**. That the City Comptroller is hereby authorized and directed to pay Cornwell Capital II LLC dba Power Curbers Companies LLC $990,650.00 for a power paver, power curber, and associated equipment from funds available in the General Fund 2024 operating budget upon receipt of proper invoices or statements approved by the City

Manager.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

APPROVED AS TO FORM ONLY:

_____
John Ohnemiller, City Attorney

Power Curbers COMPANIES, LLC

Power Curbers & Power Pavers
Our Commitment Shows

727 Bendix Drive, Salisbury, NC 28146 P.O. Box 1963, Salisbury, NC 28146
Tel 704.636.5871 • Fax 704.633.8140
www.powercurbers.com

10/9/2023

**Jesse Zamora (4325577360)**

Thank you for your interest in Power Pavers and our SF-2700, a low profile mid-sized 2 track slipform concrete paving machine. The machine will pave widths from 12' to 32' wide.

I am pleased to provide this quote/ sales agreement. for your consideration

**2023 Power Pavers SF-2700** as described on pages 2 thru 4.
City Of Midland
1602 Orchard Lane
Building 3
Midland, TX 79702

Equipment Price **642,400**

You can reach me anytime on my cell phone, 319.721.5433.
Thank you.

Jeremy Schwake
Regional Sales Manager
Power Curbers and Power Pavers Inc.

TERMS: A 20% deposit is due with the order and the balance due 5 days prior to shipment.
These prices are FOB Cedar Falls, IA and do not include delivery or any applicable tax.

EQUALIS GROUP : PaveConnect Contract #R101103A

Shipment: Delivery Price will be quoted approximately 3 weeks prior to delivery
New Machine production is scheduled at time of order and is subject to change based on backlog

By signing, I agree to the above terms and conditions.

_____ _____
Signature Date

Midland SF-2700 10.9.23

Exhibit A

# 2023 SF-2700

**Base width of 12'**

(optional extensions to 32 ' listed below)

Cummins QSB6.7 water cooled turbo charged diesel engine,Tier 4F, 220 HP @ 2200 RPM,
12 volt electrical system.
Two 12 foot long Berco tracks, 12 inch wide steel pads, torque hub drive
Containment track noses 60" long, foldable.
Sixteen ( 16 ) hydraulic vibrator circuits with individual variable controls.
Twelve ( 12 ) hydraulic angled vibrators, 2.25" diameter with hydraulic lift, and baffled vibrator bar.
Split reversible hard surfaced auger system, individual controlled, 16" diameter.
Double tamper bar system staggered, with speed control, depth adjustable, eccentric cams.
Hydraulic controlled crownable finished pan system, .375" thick x 46" with adjustable edge overbuild.
Hydraulic controlled strike-off system crownable, .375" thick with adjustable height spreader beam.
Side forms 32" high, for 0"– 16" paving depth. Side form connected to the tracks for variable depth
paving on the go.
Rear mounted 18" wide walkway, sectionalized, with burlap drag hooks.
Four ( 4 ) hydraulic grade cylinders with 24" lift.
Proportional electronic sensor controlled grade, 4 sensors, for dual string-line, single string-line with cross slope
ensors, lock to grade or 3-D stringless with purchase of third party system and kit listed below.
Proportional electronic sensor controlled steering, 1 sensor, left or right side capability.
Synchronized start/stop switch for all paving functions.
Safety horn for operator
Emergency stop switches
Pressure washer system, 4 gpm @ 2000 psi, 50 ft hose with dual spray wand tip.
Two 110 gal plastic water tanks.
Hydraulic replacement filters.
Control console with umbrella.
Hydraulic sid from lift 4" lift
Pan Crown Lineal Indicator
Start-up Training for 3 days (Monday & Friday for travel include all expenses.)
Auto Reverse steering sensor one sensor
**WARRANTY:** 12 months. (2 years or 2000 hours on Cummins engine)

**STANDARD MACHINE** **422,500**

**OPTIONAL EQUIPMENT:** **30,400**

Urethane pads in lieu of steel pads both tracks ( 12' track )
Hydraulic Sideform Nose Lift.
1 set of 2 32" tall Loading Ramps

**OPTIONAL INDIVIDUAL EXTENSION KITS:** **70,500**

Spreader Beam Extension Kit required for widths over 18 feet
6 inch left side paving extension
6 inch right side paving extension
12 inch left side paving kit extension.
12 inch right side paving kit extension.
24 inch left side paving kit extension.
24 inch right side paving kit extension.
48 inch left side paving extension
48 inch right side paving extension
32 ft Extension kit consisting of 4ft left and right extensions through the machine, plus additional spreader components and hoses required for widths over 27ft.
(Does not include additional vibrators.)

**VIBRATORS:** **25,800**

12 Additional Hydraulic Vibrator, angled, 2500# rotor, 20ft hoses. ( @ 1966)
2 additional Vibrator Control Manifold, 4 controls with fittings.

**BAR INSERTERS** **21,900**

Hydraulic Side Bar Inserter for LH and RH (Includes LH & RH Trail Forms)
Center Bar Inserter for 30" to 36" (76.20-91.44 cm) bars, with activating wheel, bar basket and safety rail.

**FINISHING** **54,600**

Final Finisher
Water Misting System 12ft to 27ft (Requires pressure washer pump.)
Work bridge 12ft. - 32ft. Swivel Wheels Non Powered

**MOLDS** **4,000**

2 Curb Mold, LH and RH, must fit into 12 inch wide x 8 inch high dimensions.
Note: Consult factory for different curb dimensions.

**STRINGLINE** **2,700**

String line package 5000 ft (1.52 km) of string,200 stakes, 200 rods, and 200 line rod holder brackets.
2 String line tensioning winch.

**Midland SF-2700 23.2.23** **Initials** _____

**GPS/3D PACKAGE** 5,000

GPS/3-D Controls compatibility kit which includes reciever masts, power conditioner and wiring to connect 3-D control system.

**GPS or 3D control systems are priced seperately from the slipform machine. Consult the manufacturing company of the GPS/3D system for pricing

**The SF 1700 is validated on Top Con, Leica and Trimble Systems**

**SPARE PARTS KIT** 5,000

1 additional vibrator complete + Spare parts kit SP-27001-LE

**TOTAL** **642,400**

**Midland SF--2700 10.9.23** **Initials** _____

Power Curbers & Power Pavers
Our Commitment Shows

Power Curbers COMPANIES, LLC

Power Curbers & Power Pavers
Our Commitment Shows

10/5/23

Jesse Zamora (4325577360)

Thank you for your interest in Power Curbers and our 5700-D, the newest generation of the world's number-one selling slipform curb machine. It is simple to understand, easy to operate, and has the features and versatility to get to job done.

I am pleased to provide this quote for your consideration.

**2023 Power Curbers 5700-D** as described on page 2
City Of Midland
1602 Orchard Lane
Building 3
Midland, TX 79702

**Unit Price** **$348,250.00**

You can reach me anytime on my cell phone at 319.721.5433.

Thank you,

Jeremy Schwake
Regional Sales Manager
Power Curbers Companies, LLC

TERMS: A 20% deposit is due with the order and the balance due 5 days prior to shipment. These prices are FOB Salisbury, NC and do not include delivery or applicable tax. This quotation is valid for 30 days.

EQUALIS GROUP : PaveConnect Contract #R101103A

SHIPMENT: If requested, a delivery price can be quoted approximately 3 weeks prior to delivery. New machine production is scheduled at time of order and is subject to change based on backlog.

By signing, I agree to the above prices and the terms and conditions.

_____ _____
Signature Date

727 Bendix Drive, Salisbury, NC 28146 P.O. Box 1963, Salisbury, NC 28146
Tel 704.636.5871 • Fax 704.633.8140
www.powercurbers.com

## 2023 POWER CURBERS 5700-D

**STANDARD EQUIPMENT**

- SlipSmart electronic over hydraulic control for grade, forward and reverse steering, and slope. For automatic stringline control. Features auto slope, cruise control, and 3D readiness.
- Power Curbers ConnectSmart telematics system, for remote "visibility" of your machine.
- Synchronized on/off control for vibrators and crawlers.
- 42" carbide tooth fine trimmer, 21" diameter with spreader auger. 16" vertical hydraulic adjustment; 80" lateral hydraulic adjustment.
- Three Berco crawler tracks with 12" wide steel crawler pads; planetary gear reduction.
- 36" lift cylinders on elevation adjustment posts, with "all up" control.
- Hydraulic auger conveyor with torque hub drive; cast flighting; 12' long.
- 6 hydraulic vibrator circuits with electronic proportional controls and master scaling.
- 2 hydraulic vibrators with hangers.
- Right rear post has 22" of hydraulic side shift.
- 132-gallon stainless steel water tank with 2000 PSI high-pressure washer and adjustable spray nozzle.
- Hydraulically adjustable offset mold mount with 16" vertical hydraulic adjustment and 24" horizontal adjustment.
- One curb and gutter mold up to 32" wide.
- One Universal hopper.
- Safety horn for operator and chute man.
- LED light kit, backup alarm, and five emergency stop switches.
- Bimini Top
- Fuel reservoir: 66 gallons.
- Hydraulic tank capacity: 50 gallons.
- Operating weight: 24,700 pounds.
- Cummins QSB4.5-130C Tier 4F diesel engine, turbo CAC, 130 hp at 2400 rpm (97kW).
- **Warranty** – Machine = 1 year or 1000 hours. Engine = 2 years or 2000 hours by Cummins.

**OPTIONAL EQUIPMENT** (included in price on page 1)

- 3D/GPS package - to pour without stringline with a machine control system from Topcon, Leica, or Trimble (sold separately). Includes All-crawler steering, in lieu of standard front steering & 3D/GPS Controls. Compatibility kit which includes receiver masts, power conditioner, and wiring to connect 3D control system.
- Quick connect mold mounting, in lieu of standard mold mount
- Hydraulic lock for mold offset
- Hydraulic front grade sensor control - operator controlled
- D-Rings for alternative chain-down pattern (see manual for recommended chaining)
- Urethane crawler pads, in lieu of standard steel grouser pads (set of 3)
- 2 Sensor ski and skate combo on grade arm assembly, + 2 sensor jack extensions.
- Stringline kit with 5000' of string and 200 stakes, rods, and clamps + radius kit SL-208
- Additional Vibrator w/hanger – 2 additional sensors – extra curly cord – Hopper casket.
- Start-up Training for 3 days (Monday & Friday for travel include all expenses.)

Power Curbers COMPANIES, LLC

Power Curbers & Power Pavers
Our Commitment Shows

727 Bendix Drive, Salisbury, NC 28146 P.O. Box 1963, Salisbury, NC 28146
Tel 704.636.5871 • Fax 704.633.8140
www.powercurbers.com

10/9/2023

**Jesse Zamora (4325577360)**

Thank you for your interest in Power Pavers and our SF-2700, a low profile mid-sized 2 track slipform concrete paving machine. The machine will pave widths from 12' to 32' wide.

I am pleased to provide this quote/ sales agreement. for your consideration

**2023 Power Pavers SF-2700** as described on pages 2 thru 4.
City Of Midland
1602 Orchard Lane
Building 3
Midland, TX 79702

Equipment Price **642,400**

You can reach me anytime on my cell phone, 319.721.5433.
Thank you.

Jeremy Schwake
Regional Sales Manager
Power Curbers and Power Pavers Inc.

TERMS: A 20% deposit is due with the order and the balance due 5 days prior to shipment.
These prices are FOB Cedar Falls, IA and do not include delivery or any applicable tax.

EQUALIS GROUP : PaveConnect Contract #R101103A

Shipment: Delivery Price will be quoted approximately 3 weeks prior to delivery
New Machine production is scheduled at time of order and is subject to change based on backlog

By signing, I agree to the above terms and conditions.

_____ _____
Signature Date

Midland SF-2700 10.9.23

# 2023 SF-2700

**Base width of 12'**

(optional extensions to 32 ' listed below)

Cummins QSB6.7 water cooled turbo charged diesel engine,Tier 4F, 220 HP @ 2200 RPM,
12 volt electrical system.
Two 12 foot long Berco tracks, 12 inch wide steel pads, torque hub drive
Containment track noses 60" long, foldable.
Sixteen ( 16 ) hydraulic vibrator circuits with individual variable controls.
Twelve ( 12 ) hydraulic angled vibrators, 2.25" diameter with hydraulic lift, and baffled vibrator bar.
Split reversible hard surfaced auger system, individual controlled, 16" diameter.
Double tamper bar system staggered, with speed control, depth adjustable, eccentric cams.
Hydraulic controlled crownable finished pan system, .375" thick x 46" with adjustable edge overbuild.
Hydraulic controlled strike-off system crownable, .375" thick with adjustable height spreader beam.
Side forms 32" high, for 0"– 16" paving depth. Side form connected to the tracks for variable depth
paving on the go.
Rear mounted 18" wide walkway, sectionalized, with burlap drag hooks.
Four ( 4 ) hydraulic grade cylinders with 24" lift.
Proportional electronic sensor controlled grade, 4 sensors, for dual string-line, single string-line with cross slope
ensors, lock to grade or 3-D stringless with purchase of third party system and kit listed below.
Proportional electronic sensor controlled steering, 1 sensor, left or right side capability.
Synchronized start/stop switch for all paving functions.
Safety horn for operator
Emergency stop switches
Pressure washer system, 4 gpm @ 2000 psi, 50 ft hose with dual spray wand tip.
Two 110 gal plastic water tanks.
Hydraulic replacement filters.
Control console with umbrella.
Hydraulic sid from lift 4" lift
Pan Crown Lineal Indicator
Start-up Training for 3 days (Monday & Friday for travel include all expenses.)
Auto Reverse steering sensor one sensor
**WARRANTY:** 12 months. (2 years or 2000 hours on Cummins engine)

**STANDARD MACHINE** **422,500**

**Midland SF-2700 10.9.23** **Initials _____**

**OPTIONAL EQUIPMENT:** **30,400**

Urethane pads in lieu of steel pads both tracks ( 12' track )
Hydraulic Sideform Nose Lift.
1 set of 2 32" tall Loading Ramps

**OPTIONAL INDIVIDUAL EXTENSION KITS:** **70,500**

Spreader Beam Extension Kit required for widths over 18 feet
6 inch left side paving extension
6 inch right side paving extension
12 inch left side paving kit extension.
12 inch right side paving kit extension.
24 inch left side paving kit extension.
24 inch right side paving kit extension.
48 inch left side paving extension
48 inch right side paving extension
32 ft Extension kit consisting of 4ft left and right extensions through the machine, plus additional spreader components and hoses required for widths over 27ft.
(Does not include additional vibrators.)

**VIBRATORS:** **25,800**

12 Additional Hydraulic Vibrator, angled, 2500# rotor, 20ft hoses. ( @ 1966)
2 additional Vibrator Control Manifold, 4 controls with fittings.

**BAR INSERTERS** **21,900**

Hydraulic Side Bar Inserter for LH and RH (Includes LH & RH Trail Forms)
Center Bar Inserter for 30" to 36" (76.20-91.44 cm) bars, with activating wheel, bar basket and safety rail.

**FINISHING** **54,600**

Final Finisher
Water Misting System 12ft to 27ft (Requires pressure washer pump.)
Work bridge 12ft. - 32ft. Swivel Wheels Non Powered

**MOLDS** **4,000**

2 Curb Mold, LH and RH, must fit into 12 inch wide x 8 inch high dimensions.
Note: Consult factory for different curb dimensions.

**STRINGLINE** **2,700**

String line package 5000 ft (1.52 km) of string,200 stakes, 200 rods, and 200 line rod holder brackets.
2 String line tensioning winch.

**Midland SF-2700 23.2.23** **Initials** _____

**GPS/3D PACKAGE** 5,000

GPS/3-D Controls compatibility kit which includes reciever masts, power conditioner and wiring to connect 3-D control system.

**GPS or 3D control systems are priced seperately from the slipform machine. Consult the manufacturing company of the GPS/3D system for pricing

**The SF 1700 is validated on Top Con, Leica and Trimble Systems**

**SPARE PARTS KIT** 5,000

1 additional vibrator complete + Spare parts kit SP-27001-LE

**TOTAL** **642,400**

**Midland SF--2700 10.9.23** **Initials** _____

Power Curbers & Power Pavers
Our Commitment Shows

Power Curbers COMPANIES, LLC

Power Curbers & Power Pavers
Our Commitment Shows

10/5/23

Jesse Zamora (4325577360)

Thank you for your interest in Power Curbers and our 5700-D, the newest generation of the world's number-one selling slipform curb machine. It is simple to understand, easy to operate, and has the features and versatility to get to job done.

I am pleased to provide this quote for your consideration.

**2023 Power Curbers 5700-D** as described on page 2
City Of Midland
1602 Orchard Lane
Building 3
Midland, TX 79702

**Unit Price** **$348,250.00**

You can reach me anytime on my cell phone at 319.721.5433.

Thank you,

Jeremy Schwake
Regional Sales Manager
Power Curbers Companies, LLC

TERMS: A 20% deposit is due with the order and the balance due 5 days prior to shipment. These prices are FOB Salisbury, NC and do not include delivery or applicable tax. This quotation is valid for 30 days.

EQUALIS GROUP : PaveConnect Contract #R101103A

SHIPMENT: If requested, a delivery price can be quoted approximately 3 weeks prior to delivery. New machine production is scheduled at time of order and is subject to change based on backlog.

By signing, I agree to the above prices and the terms and conditions.

_____ _____
Signature Date

727 Bendix Drive, Salisbury, NC 28146 P.O. Box 1963, Salisbury, NC 28146
Tel 704.636.5871 • Fax 704.633.8140
www.powercurbers.com

## 2023 POWER CURBERS 5700-D

**STANDARD EQUIPMENT**

- SlipSmart electronic over hydraulic control for grade, forward and reverse steering, and slope. For automatic stringline control. Features auto slope, cruise control, and 3D readiness.
- Power Curbers ConnectSmart telematics system, for remote "visibility" of your machine.
- Synchronized on/off control for vibrators and crawlers.
- 42" carbide tooth fine trimmer, 21" diameter with spreader auger. 16" vertical hydraulic adjustment; 80" lateral hydraulic adjustment.
- Three Berco crawler tracks with 12" wide steel crawler pads; planetary gear reduction.
- 36" lift cylinders on elevation adjustment posts, with "all up" control.
- Hydraulic auger conveyor with torque hub drive; cast flighting; 12' long.
- 6 hydraulic vibrator circuits with electronic proportional controls and master scaling.
- 2 hydraulic vibrators with hangers.
- Right rear post has 22" of hydraulic side shift.
- 132-gallon stainless steel water tank with 2000 PSI high-pressure washer and adjustable spray nozzle.
- Hydraulically adjustable offset mold mount with 16" vertical hydraulic adjustment and 24" horizontal adjustment.
- One curb and gutter mold up to 32" wide.
- One Universal hopper.
- Safety horn for operator and chute man.
- LED light kit, backup alarm, and five emergency stop switches.
- Bimini Top
- Fuel reservoir: 66 gallons.
- Hydraulic tank capacity: 50 gallons.
- Operating weight: 24,700 pounds.
- Cummins QSB4.5-130C Tier 4F diesel engine, turbo CAC, 130 hp at 2400 rpm (97kW).
- **Warranty** – Machine = 1 year or 1000 hours. Engine = 2 years or 2000 hours by Cummins.

**OPTIONAL EQUIPMENT** (included in price on page 1)

- 3D/GPS package - to pour without stringline with a machine control system from Topcon, Leica, or Trimble (sold separately). Includes All-crawler steering, in lieu of standard front steering & 3D/GPS Controls. Compatibility kit which includes receiver masts, power conditioner, and wiring to connect 3D control system.
- Quick connect mold mounting, in lieu of standard mold mount
- Hydraulic lock for mold offset
- Hydraulic front grade sensor control - operator controlled
- D-Rings for alternative chain-down pattern (see manual for recommended chaining)
- Urethane crawler pads, in lieu of standard steel grouser pads (set of 3)
- 2 Sensor ski and skate combo on grade arm assembly, + 2 sensor jack extensions.
- Stringline kit with 5000' of string and 200 stakes, rods, and clamps + radius kit SL-208
- Additional Vibrator w/hanger – 2 additional sensors – extra curly cord – Hopper casket.
- Start-up Training for 3 days (Monday & Friday for travel include all expenses.)

# City Council Meeting

**Item Number:** 9

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Erika Martinez, Manager, Purchasing

**Subject:** RESOLUTION APPROVING THE PURCHASE OF ONE (1) JOHN DEERE 6110M CAB TRACTOR, ONE (1) JOHN DEERE 1585 TERRAIN CUT COMMERCIAL FRONT MOWER, AND ONE (1) JOHN DEERE 72-INCH 7-IRON PRO COMMERCIAL SIDE MOWER FROM DEERE & COMPANY THROUGH SOURCEWELL FOR A TOTAL COST OF $209,887.38 (DISTRICT: NONE) (GENERAL SERVICES)

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**Purpose:**

Resolution for the purchase of one (1) Cab Tractor with Heavy Duty Cutter, one (1) Terrain Cut, and one (1) 7-Iron Pro Deck from Deere & Company through Sourcewell contract 110719-JDC for a total cost of $209,887.38 for the Airport Airpark Division for the Garage Division.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

Funding is available in the Airport Fund 2024 operating budget.

**Discussion:**

Staff is recommending the purchase of one (1) Cab Tractor with Heavy Duty Cutter, one (1) Terrain Cut, and one (1) 7-Iron Pro Deck from Deere & Company through Sourcewell contract 110719-JDC. We are members of this cooperative and Subchapter F, Section 271.102 of the Local Government Code provides that a local government may participate in a cooperative purchasing program and that purchasing goods or services under Subchapter F satisfies any state law requiring the local government to seek competitive bids for those purchases. This will be an addition to the fleet. Please see attached memo from Manuel Salinas, Garage Superintendent and Justine Ruff, Director of Airports, for additional information.

Therefore, please consider a resolution approving the purchase of one (1) Cab Tractor with Heavy Duty Cutter, one (1) Terrain Cut, and one (1) 7-Iron Pro Deck from Deere & Company of Cary, NC through Sourcewell contract 110719-JDC for a total cost of $209,887.38.

Morris Williams Jr.

City Manager's Office

# Fleet Services Division

**INTEROFFICE MEMORANDUM**

**TO: Regina Stephenson**

**FROM: Manuel Salinas**

**SUBJECT: Sourcewell Ag Tractors 110719-JDC (PG 1P CG 70)**

**DATE: 9/21/2023**

**Fleet services is requesting the purchase of the following equipment which will be new additions to the Airport Airpark.**

**(1) one John Deere 6110M Cab Tractor with Heavy Duty Cutter, budgeted amount for FY2024 is $140,199. The purchasing amount offered is $159,454.87.**

**(1) one John Deere 1585 TerrainCut, budgeted amount for FY2024 is $49,452. The purchasing amount offered is $45,410.68.**

**(1) one John Deere 72in 7-Iron Pro Deck, budgeted amount for FY2024 is $4,935. The purchasing amount offered is $5,021.83.**

**Budgeted amount for FY2024 for these 3 items is $194,586, the purchasing amount offered is $209,887.38 through Sourcewell Contract Ag Tractors 110719-JDC (PG 1P CG 70)**

**Sincerely,**

**Manuel Eloy Salinas**

**City of Midland Garage Superintendent**

**RESOLUTION NO. _____**

**RESOLUTION APPROVING THE PURCHASE OF ONE (1) JOHN DEERE 6110M CAB TRACTOR, ONE (1) JOHN DEERE 1585 TERRAIN CUT COMMERCIAL FRONT MOWER, AND ONE (1) JOHN DEERE 72-INCH 7-IRON PRO COMMERCIAL SIDE MOWER FROM DEERE & COMPANY THROUGH SOURCEWELL FOR A TOTAL COST OF $209,887.38**

**WHEREAS**, the Sourcewell is a cooperative purchasing agency with which the City participates with on purchases through a cooperative purchasing program in accordance with TEX. LOC. GOV'T CODE § 271.102; and

**WHEREAS**, Deere & Company has submitted a total proposed cost to the City of $209,887.38 for the purchase of one (1) John Deere 6100M Cab Tractor, one (1) John Deere 1585 TerrainCut Commercial Front Mower, and one (1) John Deere 72-inch 7-Iron Pro Commercial Side Mower through Sourcewell, as shown on the quote attached hereto as Exhibit A and incorporated herein for all purposes; and

**WHEREAS**, the City Council finds the price proposed by Deere & Company for said tractor and mowers to be fair and reasonable; and

**WHEREAS**, the City Council finds it to be in the public interest to purchase said tractor and mowers from Deere & Company through Sourcewell;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the City Manager is hereby authorized and directed to purchase one (1) John Deere 6100M Cab Tractor, one (1) John Deere 1585 TerrainCut Commercial Front Mower, and one (1) John Deere 72-inch 7-Iron Pro Commercial Side Mower from Deere & Company through Sourcewell for a total cost of $209,887.38.

**SECTION TWO.** That the City Comptroller is hereby authorized and directed to pay Deere & Company for said tractor and mowers from funds available in the Airport Fund 2024 operating budget upon receipt of proper invoices or statements approved by the City Manager.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

APPROVED AS TO FORM ONLY:

_____
John Ohnemiller, City Attorney

**DATE:** October 03, 2023

**TO:** Justine Ruff, Director of Airports

**FROM:** Michael Carrillo, Accounting Manager

**SUBJECT:** Price Increase of the new Cab Tractor

---

We collected bids to purchase a Cab Tractor needed for the Airport's fleet of equipment during the 2023-24 fiscal year. The original bid submitted for the Cab Tractor, along with a deck (cutter attached) was $140,199.00. After checking the paperwork, we realized the bid offered for the deck portion of the Cab Tractor was for the wrong model needed. The amount of work the Airport does requires a heavier duty attachment than the deck initially proposed.

The price for the Cab Tractor and the deck we need is $159,454.87. This increase is due to bids submitted on a lesser model than the Airport requires, and also considering inflation and the natural price increase from the time of the first bid and the second.

The model of the cutter attachment on our most recent quote, SCHULTE XH1500, is a heavy-duty model and will be more sufficient in our area.

JOHN DEERE

**Customer:**

**Quotes are valid for 30 days from the creation date or upon contract expiration, whichever occurs first.**

**A Purchase Order (PO) or Letter of Intent (LOI) including the below information is required to proceed with this sale. The PO or LOI will be returned if information is missing.**

☐ Vendor: Deere & Company
2000 John Deere Run
Cary, NC 27513

**For any questions, please contact:**

**Joey Sanchez**

South Plains Implement, Ltd.
18770 Alameda
Tornillo, TX 79853

Tel: 915-764-2263
Fax: 915-764-2956
Email: jsanchez@spitractor.com

☐ Signature on all LOIs and POs with a signature line

☐ Contract name or number; or JD Quote ID

☐ Sold to street address

☐ Ship to street address (no PO box)

☐ Bill to contact name and phone number

☐ Bill to address

☐ Bill to email address (required to send the invoice and/or to obtain the tax exemption certificate

☐ Membership number if required by the contract

Quotes of equipment offered through contracts between Deere & Company, its divisions and subsidiaries (collectively “Deere”) and government agencies are subject to audit and access by Deere's Strategic Accounts Business Division to ensure compliance with the terms and conditions of the contracts.

JOHN DEERE

**ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):**
Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

**ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:**
South Plains Implement, Ltd.
18770 Alameda
Tornillo, TX 79853
915-764-2263
webcontact@spitractor.com

## Quote Summary

**Prepared For:**
Richard Reynolds
TX

**Delivering Dealer:**
**South Plains Implement, Ltd.**
Joey Sanchez
18770 Alameda
Tornillo, TX 79853
Phone: 915-764-2263
jsanchez@spitractor.com

**Quote ID:** 29632005
**Created On:** 18 September 2023
**Last Modified On:** 12 October 2023
**Expiration Date:** 20 November 2023

| Equipment Summary | Selling Price | | Qty | | Extended |
|---|---|---|---|---|---|
| JOHN DEERE 6110M Cab Tractor | $ 159,454.87 | X | 1 | = | $ 159,454.87 |
| **Contract:** Sourcewell Ag Tractors 110719-JDC (PG 1P CG 70)<br>**Price Effective Date:** September 24, 2023 | | | | | |
| JOHN DEERE 1585 TerrainCut™ with ComfortCab Commercial Front Mower (Less Mower Deck) | $ 45,410.68 | X | 1 | = | $ 45,410.68 |
| **Contract:** NPP Landscape Equip and UVs PS21030 (PG 5S CG 70)<br>**Price Effective Date:** September 27, 2023 | | | | | |
| JOHN DEERE 72 In. 7-Iron PRO Commercial Side Discharge Mower Deck | $ 5,021.83 | X | 1 | = | $ 5,021.83 |
| **Contract:** NPP Landscape Equip and UVs PS21030 (PG 5S CG 70)<br>**Price Effective Date:** September 27, 2023 | | | | | |
| **Equipment Total** | | | | | **$ 209,887.38** |

* Includes Fees and Non-contract items

**Quote Summary**

| | |
|---|---|
| Equipment Total | $ 209,887.38 |
| Trade In | |
| SubTotal | **$ 209,887.38** |



**Salesperson : X** _____ **Accepted By : X** _____

*Confidential*

JOHN DEERE

**ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):**

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

**ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:**

South Plains Implement, Ltd.
18770 Alameda
Tornillo, TX 79853
915-764-2263
webcontact@spitractor.com

| | |
|---|---|
| Est. Service Agreement Tax | $ 0.00 |
| Total | $ 209,887.38 |
| Down Payment | (0.00) |
| Rental Applied | (0.00) |
| **Balance Due** | **$ 209,887.38** |



**Salesperson : X** _____ **Accepted By : X** _____

*Confidential*

# Selling Equipment

**Quote Id:** 29632005 **Customer Name:**

**ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):**
Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

**ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:**
South Plains Implement, Ltd.
18770 Alameda
Tornillo, TX 79853
915-764-2263
webcontact@spitractor.com

## JOHN DEERE 6110M Cab Tractor

**Hours:**

**Stock Number:**

**Contract:** Sourcewell Ag Tractors 110719-JDC (PG 1P CG 70)

**Selling Price ***
$ 159,454.87

**Price Effective Date:** September 24, 2023

* Price per item - includes Fees and Non-contract items

| Code | Description | Qty | List Price | Discount% | Discount Amount | Contract Price | Extended Contract Price |
|---|---|---|---|---|---|---|---|
| 4227L | 6110M Cab Tractor | 1 | $ 138,901.00 | 24.00 | $ 33,336.24 | $ 105,564.76 | $ 105,564.76 |
| | **Standard Options - Per Unit** | | | | | | |
| 183E | JDLink™ Modem | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 185A | Less Subscription | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 0202 | United States | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 0409 | English | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 0501 | No package | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 1436 | PowrQuad™ PLUS 24F/24R - 40 km/h | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 1755 | No ISOBUS Ready / GreenStar™ Ready | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 1950 | Less Application | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 2085 | 6M Cab - Standard Cab with RH Console | 1 | $ 3,806.00 | 24.00 | $ 913.44 | $ 2,892.56 | $ 2,892.56 |
| 2142 | Standard Seat | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 2511 | Mirrors - Manual Telescopic | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 2664 | Premium Radio | 1 | $ 800.00 | 24.00 | $ 192.00 | $ 608.00 | $ 608.00 |
| 3232 | Hydraulic Pump - 80 l/min | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 3338 | 3 Mechanical SCVs (3 SCVs 450 Series) | 1 | $ 1,412.00 | 24.00 | $ 338.88 | $ 1,073.12 | $ 1,073.12 |
| 3820 | Rear PTO - 540/1000 rpm | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 4120 | Draft Links with Telescopic Ball End - Category 2 | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 4210 | Center Link with Ball End - Category 2 | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 4421 | Stabilizer Bars - Adjustable | 1 | $ 856.00 | 24.00 | $ 205.44 | $ 650.56 | $ 650.56 |
| 5010 | Flange-Type Rear Axle | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |



*Confidential*

JOHN DEERE

# Selling Equipment

**Quote Id:** 29632005 **Customer Name:**

**ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):**
Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

**ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:**
South Plains Implement, Ltd.
18770 Alameda
Tornillo, TX 79853
915-764-2263
webcontact@spitractor.com

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5090 | Adjustable Steel Wheels (Steel Disk) | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 5212 | Rear Wheels 460/85R34 | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 5901 | Rear and Front Tire Brand - Firestone | 1 | $ 440.00 | 24.00 | $ 105.60 | $ 334.40 | $ 334.40 |
| 6045 | 4WD Front Axle - Unsuspended | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 6092 | Adjustable Steel Wheels | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 6220 | Front Wheels 380/85R24 | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 7702 | Shipment Preparation - by Ship Overseas | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 8261 | Mechanical Cab Suspension | 1 | $ 2,238.00 | 24.00 | $ 537.12 | $ 1,700.88 | $ 1,700.88 |
| 8307 | Fuel Tank Bottom Guard | 1 | $ 603.00 | 24.00 | $ 144.72 | $ 458.28 | $ 458.28 |
| 8950 | Front Base Weight - 60 kg | 1 | $ 282.00 | 24.00 | $ 67.68 | $ 214.32 | $ 214.32 |
| | **Standard Options Total** | | **$ 10,437.00** | | **$ 2,504.88** | **$ 7,932.12** | **$ 7,932.12** |
| | **Technology Options/Non-Contract/Open Market** | | | | | | |
| 1801 | No AutoTrac™ Package | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 1880 | Less Receiver | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 1900 | Less Display | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| | **Technology Options Total** | | **$ 0.00** | | **$ 0.00** | **$ 0.00** | **$ 0.00** |
| | **Dealer Attachments/Non-Contract/Open Market** | | | | | | |
| R127764 | Weight, front suitcase 43 kg (95 lb) quantity of one | 10 | $ 160.92 | 24.00 | $ 38.62 | $ 1,223.00 | $ 1,223.00 |
| SCHULTE | SCHULTE XH1500 | 1 | $ 44,000.00 | 0.00 | $ 0.00 | $ 44,000.00 | $ 44,000.00 |
| | **Dealer Attachments Total** | | **$ 45,609.20** | | **$ 386.20** | **$ 45,223.00** | **$ 45,223.00** |
| | | | | | | | |
| | **Value Added Services Total** | | **$ 0.00** | | | **$ 0.00** | **$ 0.00** |
| | | | **Fees** | | | | |
| | DELIVERY FEE | 1 | 480.00 | | | 480.00 | 480.00 |
| | FUEL SURCHARGE | 1 | 255.00 | | | 255.00 | 255.00 |
| | **Equipment Fees Total** | | **$ 735.00** | | | **$ 735.00** | **$ 735.00** |
| **Total Selling Price** | | | **$ 195,682.20** | | **$ 36,227.32** | **$ 159,454.88** | **$ 159,454.88** |

**JOHN DEERE 1585 TerrainCut™ with ComfortCab Commercial Front Mower**



*Confidential*

# Selling Equipment

**Quote Id:** 29632005 **Customer Name:**

**ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):**
Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

**ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:**
South Plains Implement, Ltd.
18770 Alameda
Tornillo, TX 79853
915-764-2263
webcontact@spitractor.com

**Equipment Notes:**
**Hours:**
**Stock Number:**
**Selling Price ***
**Contract:** NPP Landscape Equip and UVs PS21030 (PG 5S CG 70) $ 45,410.68
**Price Effective Date:** September 27, 2023

* Price per item - includes Fees and Non-contract items

| Code | Description | Qty | List Price | Discount% | Discount Amount | Contract Price | Extended Contract Price |
|---|---|---|---|---|---|---|---|
| 246BTC | 1585 TerrainCut™ with ComfortCab Commercial Front Mower (Less Mower Deck) | 1 | $ 54,629.00 | 22.00 | $ 12,018.38 | $ 42,610.62 | $ 42,610.62 |
| | **Standard Options - Per Unit** | | | | | | |
| 001A | United States and Canada | 1 | $ 0.00 | 22.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 183N | JDLink™ M Modem | 1 | $ 0.00 | 22.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| | **Standard Options Total** | | **$ 0.00** | | **$ 0.00** | **$ 0.00** | **$ 0.00** |
| | **Dealer Attachments/Non-Contract/Open Market** | | | | | | |
| LVB24852 | Beacon Light Kit (Cab Only) | 1 | $ 346.50 | 22.00 | $ 76.23 | $ 270.27 | $ 270.27 |
| LVB24844 | External Mirror Kit (Cab Only) | 1 | $ 270.27 | 22.00 | $ 59.46 | $ 210.81 | $ 210.81 |
| SWJHD1630 | Stereo with AM/FM, Weatherband, SIRIUS Satellite and iPod Ready | 1 | $ 328.81 | 22.00 | $ 72.34 | $ 256.47 | $ 256.47 |
| BTC10677 | Radio Mount Kit (Cab Only) | 1 | $ 173.03 | 22.00 | $ 38.07 | $ 134.96 | $ 134.96 |
| RE321109 | Radio Kit | 1 | $ 1,246.54 | 22.00 | $ 274.24 | $ 972.30 | $ 972.30 |
| UC13263 | Quik-Tatch Weight, 42 lb (19 kg) | 4 | $ 84.27 | 22.00 | $ 18.54 | $ 262.92 | $ 262.92 |
| TCB10303 | Rear Weight Mounting Kit | 1 | $ 169.65 | 22.00 | $ 37.32 | $ 132.33 | $ 132.33 |
| | **Dealer Attachments Total** | | **$ 2,871.88** | | **$ 631.82** | **$ 2,240.06** | **$ 2,240.06** |
| | | | | | | | |
| | **Value Added Services Total** | | **$ 0.00** | | | **$ 0.00** | **$ 0.00** |
| | **Fees** | | | | | | |
| | DELIVERY FEE | 1 | 480.00 | | | 480.00 | 480.00 |
| | FUEL CHARGE | 1 | 80.00 | | | 80.00 | 80.00 |
| | **Equipment Fees Total** | | **$ 560.00** | | | **$ 560.00** | **$ 560.00** |



*Confidential*

JOHN DEERE

# Selling Equipment

**Quote Id:** 29632005 **Customer Name:**

**ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):**
Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

**ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:**
South Plains Implement, Ltd.
18770 Alameda
Tornillo, TX 79853
915-764-2263
webcontact@spitractor.com

| | | | | |
|---|---|---|---|---|
| **Total Selling Price** | **$ 58,060.88** | **$ 12,650.20** | **$ 45,410.68** | **$ 45,410.68** |

## JOHN DEERE 72 In. 7-Iron PRO Commercial Side Discharge Mower Deck

**Equipment Notes:**

**Hours:**

**Stock Number:**

**Selling Price ***

**Contract:** NPP Landscape Equip and UVs PS21030 (PG 5S CG 70) $ 5,021.83

**Price Effective Date:** September 27, 2023

* Price per item - includes Fees and Non-contract items

| Code | Description | Qty | List Price | Discount% | Discount Amount | Contract Price | Extended Contract Price |
|---|---|---|---|---|---|---|---|
| 034NTC | 72 In. 7-Iron PRO Commercial Side Discharge Mower Deck | 1 | $ 6,409.00 | 22.00 | $ 1,409.98 | $ 4,999.02 | $ 4,999.02 |
| | **Standard Options - Per Unit** | | | | | | |
| 001A | United States and Canada | 1 | $ 0.00 | 22.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| | **Standard Options Total** | | **$ 0.00** | | **$ 0.00** | **$ 0.00** | **$ 0.00** |
| | **Dealer Attachments/Non-Contract/Open Market** | | | | | | |
| TCA24048 | Service Latch Chain (7 Link) | 1 | $ 29.24 | 22.00 | $ 6.43 | $ 22.81 | $ 22.81 |
| | **Dealer Attachments Total** | | **$ 29.24** | | **$ 6.43** | **$ 22.81** | **$ 22.81** |
| | | | | | | | |
| | **Value Added Services Total** | | **$ 0.00** | | | **$ 0.00** | **$ 0.00** |
| **Total Selling Price** | | | **$ 6,438.24** | | **$ 1,416.41** | **$ 5,021.83** | **$ 5,021.83** |



*Confidential*

**Customer:**

**Quotes are valid for 30 days from the creation date or upon contract expiration, whichever occurs first.**

**A Purchase Order (PO) or Letter of Intent (LOI) including the below information is required to proceed with this sale. The PO or LOI will be returned if information is missing.**

☐ Vendor: Deere & Company
2000 John Deere Run
Cary, NC 27513

**For any questions, please contact:**

**Joey Sanchez**

South Plains Implement, Ltd.
18770 Alameda
Tornillo, TX 79853

Tel: 915-764-2263
Fax: 915-764-2956
Email: jsanchez@spitractor.com

☐ Signature on all LOIs and POs with a signature line

☐ Contract name or number; or JD Quote ID

☐ Sold to street address

☐ Ship to street address (no PO box)

☐ Bill to contact name and phone number

☐ Bill to address

☐ Bill to email address (required to send the invoice and/or to obtain the tax exemption certificate

☐ Membership number if required by the contract

Quotes of equipment offered through contracts between Deere & Company, its divisions and subsidiaries (collectively “Deere”) and government agencies are subject to audit and access by Deere's Strategic Accounts Business Division to ensure compliance with the terms and conditions of the contracts.

Exhibit A

JOHN DEERE

**ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):**
Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

**ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:**
South Plains Implement, Ltd.
18770 Alameda
Tornillo, TX 79853
915-764-2263
webcontact@spitractor.com

## Quote Summary

**Prepared For:**
Richard Reynolds
TX

**Delivering Dealer:**
**South Plains Implement, Ltd.**
Joey Sanchez
18770 Alameda
Tornillo, TX 79853
Phone: 915-764-2263
jsanchez@spitractor.com

**Quote ID:** 29632005
**Created On:** 18 September 2023
**Last Modified On:** 12 October 2023
**Expiration Date:** 20 November 2023

| Equipment Summary | Selling Price | | Qty | | Extended |
|---|---|---|---|---|---|
| JOHN DEERE 6110M Cab Tractor | $ 159,454.87 | X | 1 | = | $ 159,454.87 |
| **Contract:** Sourcewell Ag Tractors 110719-JDC (PG 1P CG 70)<br>**Price Effective Date:** September 24, 2023 | | | | | |
| JOHN DEERE 1585 TerrainCut™ with ComfortCab Commercial Front Mower (Less Mower Deck) | $ 45,410.68 | X | 1 | = | $ 45,410.68 |
| **Contract:** NPP Landscape Equip and UVs PS21030 (PG 5S CG 70)<br>**Price Effective Date:** September 27, 2023 | | | | | |
| JOHN DEERE 72 In. 7-Iron PRO Commercial Side Discharge Mower Deck | $ 5,021.83 | X | 1 | = | $ 5,021.83 |
| **Contract:** NPP Landscape Equip and UVs PS21030 (PG 5S CG 70)<br>**Price Effective Date:** September 27, 2023 | | | | | |
| **Equipment Total** | | | | | **$ 209,887.38** |

* Includes Fees and Non-contract items

**Quote Summary**

| | |
|---|---|
| Equipment Total | $ 209,887.38 |
| Trade In | |
| SubTotal | **$ 209,887.38** |



**Salesperson : X** _____ **Accepted By : X** _____

*Confidential*

JOHN DEERE

**ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):**

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

**ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:**

South Plains Implement, Ltd.
18770 Alameda
Tornillo, TX 79853
915-764-2263
webcontact@spitractor.com

| | |
|---|---|
| Est. Service Agreement Tax | $ 0.00 |
| Total | $ 209,887.38 |
| Down Payment | (0.00) |
| Rental Applied | (0.00) |
| **Balance Due** | **$ 209,887.38** |



**Salesperson : X** _____ **Accepted By : X** _____

*Confidential*

# Selling Equipment

**Quote Id:** 29632005 **Customer Name:**

**ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):**
Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

**ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:**
South Plains Implement, Ltd.
18770 Alameda
Tornillo, TX 79853
915-764-2263
webcontact@spitractor.com

## JOHN DEERE 6110M Cab Tractor

**Hours:**

**Stock Number:**

**Contract:** Sourcewell Ag Tractors 110719-JDC (PG 1P CG 70)

**Selling Price ***
$ 159,454.87

**Price Effective Date:** September 24, 2023

* Price per item - includes Fees and Non-contract items

| Code | Description | Qty | List Price | Discount% | Discount Amount | Contract Price | Extended Contract Price |
|---|---|---|---|---|---|---|---|
| 4227L | 6110M Cab Tractor | 1 | $ 138,901.00 | 24.00 | $ 33,336.24 | $ 105,564.76 | $ 105,564.76 |
| | **Standard Options - Per Unit** | | | | | | |
| 183E | JDLink™ Modem | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 185A | Less Subscription | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 0202 | United States | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 0409 | English | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 0501 | No package | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 1436 | PowrQuad™ PLUS 24F/24R - 40 km/h | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 1755 | No ISOBUS Ready / GreenStar™ Ready | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 1950 | Less Application | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 2085 | 6M Cab - Standard Cab with RH Console | 1 | $ 3,806.00 | 24.00 | $ 913.44 | $ 2,892.56 | $ 2,892.56 |
| 2142 | Standard Seat | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 2511 | Mirrors - Manual Telescopic | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 2664 | Premium Radio | 1 | $ 800.00 | 24.00 | $ 192.00 | $ 608.00 | $ 608.00 |
| 3232 | Hydraulic Pump - 80 l/min | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 3338 | 3 Mechanical SCVs (3 SCVs 450 Series) | 1 | $ 1,412.00 | 24.00 | $ 338.88 | $ 1,073.12 | $ 1,073.12 |
| 3820 | Rear PTO - 540/1000 rpm | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 4120 | Draft Links with Telescopic Ball End - Category 2 | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 4210 | Center Link with Ball End - Category 2 | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 4421 | Stabilizer Bars - Adjustable | 1 | $ 856.00 | 24.00 | $ 205.44 | $ 650.56 | $ 650.56 |
| 5010 | Flange-Type Rear Axle | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |



*Confidential*

JOHN DEERE

# Selling Equipment

**Quote Id:** 29632005 **Customer Name:**

**ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):**

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

**ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:**

South Plains Implement, Ltd.
18770 Alameda
Tornillo, TX 79853
915-764-2263
webcontact@spitractor.com

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5090 | Adjustable Steel Wheels (Steel Disk) | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 5212 | Rear Wheels 460/85R34 | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 5901 | Rear and Front Tire Brand - Firestone | 1 | $ 440.00 | 24.00 | $ 105.60 | $ 334.40 | $ 334.40 |
| 6045 | 4WD Front Axle - Unsuspended | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 6092 | Adjustable Steel Wheels | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 6220 | Front Wheels 380/85R24 | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 7702 | Shipment Preparation - by Ship Overseas | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 8261 | Mechanical Cab Suspension | 1 | $ 2,238.00 | 24.00 | $ 537.12 | $ 1,700.88 | $ 1,700.88 |
| 8307 | Fuel Tank Bottom Guard | 1 | $ 603.00 | 24.00 | $ 144.72 | $ 458.28 | $ 458.28 |
| 8950 | Front Base Weight - 60 kg | 1 | $ 282.00 | 24.00 | $ 67.68 | $ 214.32 | $ 214.32 |
| | **Standard Options Total** | | **$ 10,437.00** | | **$ 2,504.88** | **$ 7,932.12** | **$ 7,932.12** |
| | **Technology Options/Non-Contract/Open Market** | | | | | | |
| 1801 | No AutoTrac™ Package | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 1880 | Less Receiver | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 1900 | Less Display | 1 | $ 0.00 | 24.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| | **Technology Options Total** | | **$ 0.00** | | **$ 0.00** | **$ 0.00** | **$ 0.00** |
| | **Dealer Attachments/Non-Contract/Open Market** | | | | | | |
| R127764 | Weight, front suitcase 43 kg (95 lb) quantity of one | 10 | $ 160.92 | 24.00 | $ 38.62 | $ 1,223.00 | $ 1,223.00 |
| SCHULTE | SCHULTE XH1500 | 1 | $ 44,000.00 | 0.00 | $ 0.00 | $ 44,000.00 | $ 44,000.00 |
| | **Dealer Attachments Total** | | **$ 45,609.20** | | **$ 386.20** | **$ 45,223.00** | **$ 45,223.00** |
| | | | | | | | |
| | **Value Added Services Total** | | **$ 0.00** | | | **$ 0.00** | **$ 0.00** |
| | | | **Fees** | | | | |
| | DELIVERY FEE | 1 | 480.00 | | | 480.00 | 480.00 |
| | FUEL SURCHARGE | 1 | 255.00 | | | 255.00 | 255.00 |
| | **Equipment Fees Total** | | **$ 735.00** | | | **$ 735.00** | **$ 735.00** |
| **Total Selling Price** | | | **$ 195,682.20** | | **$ 36,227.32** | **$ 159,454.88** | **$ 159,454.88** |

**JOHN DEERE 1585 TerrainCut™ with ComfortCab Commercial Front Mower**

PACKET 9.18 November 14, 2023

# Selling Equipment

**Quote Id:** 29632005 **Customer Name:**

**ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):**
Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

**ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:**
South Plains Implement, Ltd.
18770 Alameda
Tornillo, TX 79853
915-764-2263
webcontact@spitractor.com

**Equipment Notes:**
**Hours:**
**Stock Number:**
**Selling Price ***
**Contract:** NPP Landscape Equip and UVs PS21030 (PG 5S CG 70) $ 45,410.68
**Price Effective Date:** September 27, 2023

* Price per item - includes Fees and Non-contract items

| Code | Description | Qty | List Price | Discount% | Discount Amount | Contract Price | Extended Contract Price |
|---|---|---|---|---|---|---|---|
| 246BTC | 1585 TerrainCut™ with ComfortCab Commercial Front Mower (Less Mower Deck) | 1 | $ 54,629.00 | 22.00 | $ 12,018.38 | $ 42,610.62 | $ 42,610.62 |
| | **Standard Options - Per Unit** | | | | | | |
| 001A | United States and Canada | 1 | $ 0.00 | 22.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| 183N | JDLink™ M Modem | 1 | $ 0.00 | 22.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| | **Standard Options Total** | | **$ 0.00** | | **$ 0.00** | **$ 0.00** | **$ 0.00** |
| | **Dealer Attachments/Non-Contract/Open Market** | | | | | | |
| LVB24852 | Beacon Light Kit (Cab Only) | 1 | $ 346.50 | 22.00 | $ 76.23 | $ 270.27 | $ 270.27 |
| LVB24844 | External Mirror Kit (Cab Only) | 1 | $ 270.27 | 22.00 | $ 59.46 | $ 210.81 | $ 210.81 |
| SWJHD1630 | Stereo with AM/FM, Weatherband, SIRIUS Satellite and iPod Ready | 1 | $ 328.81 | 22.00 | $ 72.34 | $ 256.47 | $ 256.47 |
| BTC10677 | Radio Mount Kit (Cab Only) | 1 | $ 173.03 | 22.00 | $ 38.07 | $ 134.96 | $ 134.96 |
| RE321109 | Radio Kit | 1 | $ 1,246.54 | 22.00 | $ 274.24 | $ 972.30 | $ 972.30 |
| UC13263 | Quik-Tatch Weight, 42 lb (19 kg) | 4 | $ 84.27 | 22.00 | $ 18.54 | $ 262.92 | $ 262.92 |
| TCB10303 | Rear Weight Mounting Kit | 1 | $ 169.65 | 22.00 | $ 37.32 | $ 132.33 | $ 132.33 |
| | **Dealer Attachments Total** | | **$ 2,871.88** | | **$ 631.82** | **$ 2,240.06** | **$ 2,240.06** |
| | | | | | | | |
| | **Value Added Services Total** | | **$ 0.00** | | | **$ 0.00** | **$ 0.00** |
| | **Fees** | | | | | | |
| | DELIVERY FEE | 1 | 480.00 | | | 480.00 | 480.00 |
| | FUEL CHARGE | 1 | 80.00 | | | 80.00 | 80.00 |
| | **Equipment Fees Total** | | **$ 560.00** | | | **$ 560.00** | **$ 560.00** |



*Confidential*

JOHN DEERE

# Selling Equipment

**Quote Id:** 29632005 **Customer Name:**

**ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):**
Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

**ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:**
South Plains Implement, Ltd.
18770 Alameda
Tornillo, TX 79853
915-764-2263
webcontact@spitractor.com

| | | | | |
|---|---|---|---|---|
| **Total Selling Price** | **$ 58,060.88** | **$ 12,650.20** | **$ 45,410.68** | **$ 45,410.68** |

## JOHN DEERE 72 In. 7-Iron PRO Commercial Side Discharge Mower Deck

**Equipment Notes:**

**Hours:**

**Stock Number:**

**Selling Price ***

**Contract:** NPP Landscape Equip and UVs PS21030 (PG 5S CG 70) $ 5,021.83

**Price Effective Date:** September 27, 2023

* Price per item - includes Fees and Non-contract items

| Code | Description | Qty | List Price | Discount% | Discount Amount | Contract Price | Extended Contract Price |
|---|---|---|---|---|---|---|---|
| 034NTC | 72 In. 7-Iron PRO Commercial Side Discharge Mower Deck | 1 | $ 6,409.00 | 22.00 | $ 1,409.98 | $ 4,999.02 | $ 4,999.02 |
| | **Standard Options - Per Unit** | | | | | | |
| 001A | United States and Canada | 1 | $ 0.00 | 22.00 | $ 0.00 | $ 0.00 | $ 0.00 |
| | **Standard Options Total** | | **$ 0.00** | | **$ 0.00** | **$ 0.00** | **$ 0.00** |
| | **Dealer Attachments/Non-Contract/Open Market** | | | | | | |
| TCA24048 | Service Latch Chain (7 Link) | 1 | $ 29.24 | 22.00 | $ 6.43 | $ 22.81 | $ 22.81 |
| | **Dealer Attachments Total** | | **$ 29.24** | | **$ 6.43** | **$ 22.81** | **$ 22.81** |
| | | | | | | | |
| | **Value Added Services Total** | | **$ 0.00** | | | **$ 0.00** | **$ 0.00** |
| **Total Selling Price** | | | **$ 6,438.24** | | **$ 1,416.41** | **$ 5,021.83** | **$ 5,021.83** |



*Confidential*

# City Council Meeting

**Item Number:** 10

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Erika Martinez, Manager, Purchasing

**Subject:** RESOLUTION APPROVING THE PURCHASE AND UPFITTING OF THIRTY (30) CHEVROLET TAHOES AND TWO (2) CHEVROLET SILVERADO 1500 PICKUP TRUCKS FROM CALDWELL COUNTRY CHEVEROLET, LLC, THROUGH BUYBOARD AT A TOTAL COST OF $2,641,694.00 (DISTRICT: NONE) (GENERAL SERVICES)

---

**Purpose:**

Resolution for the purchase of thirty (30) Police Tahoes with upfitting and two (2) Pickups with upfitting from Caldwell Country Chevrolet, LLC through Buyboard contract 601-19 for a total cost of $2,641,694.00 for the Police Department for the Garage Division.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

Funding is available in the Garage Fund 2024 operating budget.

**Discussion:**

Staff is recommending the purchase of thirty (30) Police Tahoes with upfitting and two (2) Pickups with upfitting from Caldwell Country Chevrolet, LLC through Buyboard contract 601-19. We are members of this cooperative and Subchapter F, Section 271.102 of the Local Government Code provides that a local government may participate in a cooperative purchasing program and that purchasing goods or services under Subchapter F satisfies any state law requiring the local government to seek competitive bids for those purchases. This will be a replacement to the fleet. Please see attached memo from Manuel Salinas, Garage Superintendent, for additional information.

Therefore, please consider a resolution approving the purchase of thirty (30) Police Tahoes with upfitting and two (2) Pickups with upfitting from Caldwell Country Chevrolet, LLC of Caldwell, Texas through Buyboard contract 601-19 for a total cost of $2,641,694.00.

Morris Williams Jr.

City Manager's Office

# Fleet Services Division

**INTEROFFICE MEMORANDUM**

**TO: Regina Stephenson**

**FROM: Manuel Eloy Salinas**

**SUBJECT: Buy Board Contract #601-19 for 30 Police Tahoe's and 2 Pick Ups**

**DATE: 10/24/2023**

**Fleet Services is requesting the purchase of thirty (30) Police Tahoe's and two (2) Police Pick Ups. These thirty- two (32) units will be replacements for units that have gone beyond their useful service life. Budgeted amount for FY2024 for thirty (30) Police Package Tahoe's and two (2) Police Package Pick Ups is $2,592,000. The purchasing amount of $2,641,694 is being offered through Buy Board Contract #601-19 for thirty (30) Police Package Tahoe's, and two (2) Police Package Pick Ups from Caldwell Country.**

**Sincerely,**

**Manuel Eloy Salinas**

**City of Midland Superintendent**

**RESOLUTION NO. _____**

**RESOLUTION APPROVING THE PURCHASE AND UPFITTING OF THIRTY (30) CHEVROLET TAHOES AND TWO (2) CHEVROLET SILVERADO 1500 PICKUP TRUCKS FROM CALDWELL COUNTRY CHEVEROLET, LLC, THROUGH BUYBOARD AT A TOTAL COST OF $2,641,694.00**

**WHEREAS**, Buyboard is a cooperative purchasing agency with which the City participates with on purchases through a cooperative purchasing program in accordance with TEX. LOC. GOV'T CODE § 271.102; and

**WHEREAS**, Caldwell Country Chevrolet, LLC, has submitted a total proposed cost to the City of $2,641,694.00 for the purchase and upfitting of thirty (30) Chevrolet Tahoes and two (2) Chevrolet Silverado 1500 pickup trucks through Buyboard, as shown on the quotes attached hereto as Exhibit A and incorporated herein for all purposes; and

**WHEREAS**, the Council finds the price proposed by Caldwell Country Chevrolet, LLC, through Buyboard for the purchase and upfitting of said vehicles to be fair and reasonable; and

**WHEREAS**, the City Council finds it to be in the public interest to provide for the purchase and upfitting of said vehicles from Caldwell Country Chevrolet, LLC, through Buyboard;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the City Manager is hereby authorized and directed to provide for the purchase and upfitting of thirty (30) Chevrolet Tahoes and two (2) Chevrolet Silverado 1500 pickup trucks from Caldwell Country Chevrolet, LLC, through Buyboard at a total cost of $2,641,694.00.

**SECTION TWO.** That the City Comptroller is hereby authorized and directed to pay $2,641,694.00 to Caldwell Country Chevrolet, LLC, for the purchase and upfitting of said vehicles from funds available in the Garage Fund 2024 operating budget upon receipt of

proper invoices or statements approved by the City Manager.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

APPROVED AS TO FORM ONLY:

_____
John Ohnemiller, City Attorney

**CALDWELL COUNTRY CHEVROLET**
**800 HWY. 21 E. CALDWELL, TEXAS 77836**
**BUYBOARD 601-19**

**End User:** City of Midland
**Contact:** Jamie
**Phone/ Email:** TBD
**Product Description:** 2024 Chevrolet Tahoe (CC10706) 2WD 4dr Commercial

**Caldwell Rep:** David Lowry
**Phone:** (903) 513-2316
**Date:** Monday, October 16, 2023
**Email:** dlowry@caldwellcountry.com

**A. Bid Series:** 31-Chevrolet Tahoe Police PPV

**A. Base Price:** $ 52,500.00

**B. Published Options [Itemize each below]**

| Code | Model Vehicle | | | | |
|---|---|---|---|---|---|
| CC10706 | 2024 Chevrolet Tahoe (CC10706) 2WD 4dr Commercial | | | | |
| **Code** | **Options** | **Bid Price** | **Code** | **Options** | **Bid Price** |
| 1FL | Commercial Preferred Equipment Group | $0.00 | IOR | Audio system, Chevrolet Infotainment 3 system, | $0.00 |
| 9C1 | Identifier for Police Package Vehicle | $0.00 | J55 | Brake system, heavy duty | $0.00 |
| ATD | Seat delete, third row passenger | $0.00 | K3W | Battery, 850 cold-cranking amps with 95 amp h | $0.00 |
| AZ3 | Seats, front 40/20/40 split-bench | $0.00 | L84 | Engine, 5.3L EcoTec3 V8 | $0.00 |
| BCV | Lock control, driver side auto door lock disa | $0.00 | RNQ | Wheel, full-size spare, matching 20 (50.8 cm) st | $0.00 |
| C6C | GVWR, 7400 lbs. (3357 kg) | $0.00 | XCS | Tires, 275/55R20SL all-season, blackwall, Fires | $0.00 |
| FE9 | Emissions, Federal requirements | $0.00 | Z56 | Suspension Package, heavy-duty, police-rated. | $0.00 |
| GBA | Black | $0.00 | | | |
| GU5 | Rear axle, 3.23 ratio | $0.00 | | | |
| | | | | **Total of B. Published Options** | $ - |

**C. Unpublished Options [Itemize each below, not to exceed 25%]**

| Unpublished Options | Bid Price | Unpublished Options | Bid Price |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | **Total of C. Unpublished Options:** | $ - |

| | | |
|---|---|---|
| **D.** | **Registration, Inspection, Paperwork, Postage cost, Courthouse time, & Runner time:** | |
| **E.** | **Upfitter/Quote Number:** CAPQ-107433 | $ 27,970.00 |
| **F.** | **Delivery ETA:** | $ - |
| **G.** | **Floor Plan Interest (for in-stock and/or equipped vehicles):** | $ 1,600.00 |
| **H.** | **Lot Insurance (for in-stock and/or equipped vehicles):** | $ 400.00 |
| **I.** | **Contract Price Adjustment:** | |
| **J.** | **Additional Delivery Charge** 380 miles | $ 1,140.00 |
| **K.** | **Subtotal** | $ 83,610.00 |
| **L.** | **Quantity Ordered** 30 x K = | $ 2,508,300.00 |
| **M.** | **Trade in:** | |
| **N.** | **Coop Fee per purchase order** | **$ 400.00** |
| **O.** | **Total purchase price with coop fee (Prices and availability are subject to change without notice)** | **$ 2,508,700.00** |

**DISCLAIMER**

PRICES AND AVAILABILITY CAN CHANGE AT ANY TIME WITHOUT FURTHER NOTICE DUE TO SUPPLY CHAIN CHALLENGES. REVERIFY PRICING BEFORE ISSUING A PURCHASE ORDER. FINAL PRICE IS NOT CONFIRMED UNTIL VEHICLE ORDER IS ACCEPTED BY THE MANUFACTURER. ACKNOWLEGDE BY EMAIL RECEIPT THAT THE PURCHASE ORDER WAS RECEIVED BY USA AUTOMOTIVE PARTNERS, LLC. (CALDWELL COUNTRY CHEVROLET, ROCKDALE COUNTRY FORD

**CALDWELL COUNTRY CHEVROLET**
**800 HWY. 21 E. CALDWELL, TEXAS 77836**
**BUYBOARD 601-19**

**End User:** City of Midland
**Contact:** Jamie
**Phone/ Email:** TBD
**Product Description:** 2023 Chevrolet Silverado 1500 (CK10743) 4WD Crew Cab 157" I

**Caldwell Rep:** David Lowry
**Phone:** (903) 513-2316
**Date:** Wednesday, October 18, 2023
**Email:** dlowry@caldwellcountry.com

**A. Bid Series:** 25 - CHEVROLET 1500 PICKUP

**A. Base Price:** $ 54,500.00

**B. Published Options [Itemize each below]**

| Code | Model Vehicle | | | | |
|---|---|---|---|---|---|
| CK10743 | 2023 Chevrolet Silverado 1500 (CK10743) 4WD Crew Cab 157" LT | | | | |
| **Code** | **Options** | **Bid Price** | **Code** | **Options** | **Bid Price** |
| R7N | Not Equipped with Steering Column Lock, | $0.00 | C49 | Defogger, rear-window electric | $0.00 |
| L84 | Engine, 5.3L EcoTec3 V8 | $0.00 | C5Y | GVWR, 7100 lbs. (3221 kg) | $0.00 |
| K05 | Engine block heater | $0.00 | GAZ | Summit White | $0.00 |
| BAQ | Work Truck Package | $0.00 | GU5 | Rear axle, 3.23 ratio | $0.00 |
| RC5 | Tires, LT265/70R17C all-terrain, blackwall | $0.00 | H0U | Jet Black, Cloth seat trim | $0.00 |
| RD6 | Wheels, 17 x 8" (43.2 cm x 20.3 cm) Ultra S | $0.00 | KW7 | Alternator, 170 amps | $0.00 |
| 1LT | LT Preferred Equipment Group | $0.00 | MHT | Transmission, 10-speed automatic, electronically | $0.00 |
| AZ3 | Seats, front 40/20/40 split-bench | $0.00 | RHM | Tire, spare, LT265/70R17, all-terrain, blackwall | $0.00 |
| B59 | Remote Start Package | $0.00 | UTJ | Theft-deterrent system, unauthorized entry | $0.00 |
| | | | | **Total of B. Published Options** | $ - |

**C. Unpublished Options [Itemize each below, not to exceed 25%]**

| Unpublished Options | Bid Price | Unpublished Options | Bid Price |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | **Total of C. Unpublished Options:** | $ - |

| | | | |
|---|---|---|---|
| **D.** | **Registration, Inspection, Paperwork, Postage cost, Courthouse time, & Runner time:** | | |
| **E.** | **Upfitter/Quote Number:** | CAPQ-107445 | $ 8,657.00 |
| **F.** | **Delivery ETA:** | | $ - |
| **G.** | **Floor Plan Interest (for in-stock and/or equipped vehicles):** | | $ 1,600.00 |
| **H.** | **Lot Insurance (for in-stock and/or equipped vehicles):** | | $ 400.00 |
| **I.** | **Contract Price Adjustment:** | | |
| **J.** | **Additional Delivery Charge** | 380 miles | $ 1,140.00 |
| **K.** | **Subtotal** | | $ 66,297.00 |
| **L.** | **Quantity Ordered** | 2 x K = | $ 132,594.00 |
| **M.** | **Trade in:** | | |
| **N.** | **Coop Fee per purchase order** | | **$ 400.00** |
| **O.** | **Total purchase price with coop fee (Prices and availability are subject to change without notice)** | | **$ 132,994.00** |

**DISCLAIMER**

PRICES AND AVAILABILITY CAN CHANGE AT ANY TIME WITHOUT FURTHER NOTICE DUE TO SUPPLY CHAIN CHALLENGES. REVERIFY PRICING BEFORE ISSUING A PURCHASE ORDER. FINAL PRICE IS NOT CONFIRMED UNTIL VEHICLE ORDER IS ACCEPTED BY THE MANUFACTURER. ACKNOWLEGDE BY EMAIL RECEIPT THAT THE PURCHASE ORDER WAS RECEIVED BY USA AUTOMOTIVE PARTNERS, LLC. (CALDWELL COUNTRY CHEVROLET, ROCKDALE COUNTRY FORD

# Quote

Date 9/14/2023
Quote # CAPQ-107443

**CAP FLEET**
2603 Taylors Valley Road
Belton, TX 76513
Office 254-773-1959

**Name / Address**
Midland, City of
601 North Loraine Street, Midland, Texas 79701
United States

**Ship To:**
Midland, City of
Liz Thornton
601 North Loraine Street, Midland, Texas 79701

| | |
|---|---|
| **Salesperson:** | Alex Orrantia |
| **Email:** | tbd |
| **Contact Name:** | Jamie TBD |

| | |
|---|---|
| **Year:** | 2024 |
| **Make:** | Chevrolet |
| **Model:** | TAHOE PPV |

Job Description: FEDERAL SIGNAL BUILD\
BUY BOARD 603-20 TAHOE

## Quote Summary

| | |
|---|---|
| Per Vehicle Subtotal | $27,970.00 |
| Per Vehicle Tax | $0.00 |
| Per Vehicle Total | $27,970.00 |
| # Vehicles Quoted | 30 |

## Grand Total $839,100.00

****PRICES ARE VALID FOR 30 DAYS BUT ARE SUBJECT TO CHANGE DUE TO SUPPLY CHAIN CHALLENGES.
REVERIFY PRICING BEFORE ISSUING A PURCHASE ORDER. COMMODITY SURCHARGES MAY APPLY AFTER PO IS ISSUED.
ALL CANCELLED ORDERS ARE SUBJECT TO A 20% RESTOCKING FEE****

I hereby authorize the install work therein set forth to be done by CAP Fleet Upfitters, together with the furnishing by CAP Fleet Upfitters of the necessary parts and other material for such install and agree that CAP Fleet Upfitters is not responsible for any delays caused by unavailability or delayed availability of parts or material for any reason; that CAP Fleet Upfitters neither assumes or authorizes any other person to assume for CAP Fleet Upfitters any liability in connection with such install; that CAP Fleet Upfitters shall not be responsible for loss or damage to the above vehicle, or articles left therein; in case of fire, theft, any Act of God, or other cause beyond CAP Fleet Upfitters control; that CAP Fleet Upfitters employees may operate the above vehicle on streets, highways, or elsewhere for the purpose of testing and/or inspecting such vehicle.

WWW.CAPFLEET.COM

QUOTES ARE GOOD FOR 30 DAYS.

PLEASE SIGN BELOW IF ALL ITEMS & QUANTITIES ARE APPROVED.

X_____ Date: / /

# Quote

Date 9/14/2023
Quote # CAPQ-107443

**CAP FLEET**
2603 Taylors Valley Road
Belton, TX 76513
Office 254-773-1959

| QTY | Part # | Part Details |
|---|---|---|
| **CONSOLE/MDT** | | |
| 1 | C-EB30-CH7-1P | 1-PIECE EQUIPMENT MOUNTING BRACKET; 3" MOUNTING SPACE; FITS M/A-COM CH-721 |
| 1 | C-EB40-SSP-1P | 1-PIECE EQUIPMENT MOUNTING BRACKET; 4" MOUNTING SPACE; FITS FEDERAL SIGNAL SMART SIREN SSP3000 |
| 1 | C-EB40-PAN-1P | 1-PIECE EQUIPMENT MOUNTING BRACKET; 4" MOUNTING SPACE; FITS MISC. PANASONIC AG-CPD20 |
| 2 | MK-2CL | MULTI-POSITION MICROPHONE HOLDER W/CLIP |
| 2 | MMBP | MAGNETIC MIC KIT |
| 1 | C-HDM-204 | 8.5" HEAVY-DUTY TELESCOPING POLE; SIDE MOUNT; SHORT HANDLE |
| 1 | C-MD-112 | 11" SLIDE OUT LOCKING SWING ARM WITH MOTION ADAPTER |
| 1 | PP-2021-TAH-SFF | (PP-2021-TAH-SFF) 2021-2023 CHEVY TAHOE SHORTY CENTER CONSOLE WITH FLIP FORWARD ARM REST. |
| **ELECTRONICS** | | |
| 1 | CG-X | CHARGEGUARD-SELECT |
| **EMERGENCY LIGHTING** | | |
| 1 | FED22VALR51-DE | 51" DUO VALOR BAR FULLY POPULATED (DRIVER SIDE RED/WHITE FRONT; RED/AMBER REAR; PASSENGER SIDE BLUE/WHITE FRONT; BLUE/AMBER REAR) PF200S17B PATHFINDER SIREN; EXPMOD24 EXPANSION MODULE; PFSYNC-1 SYNC; OBD*; ES100C SPEAKER; ESB-U; HKB* |
| 1 | VALR51J-P1L | 51" VALOR RED/BLUE WARNING LIGHTS ALL 2-COLOR EXCEPT POSITIONS 15 16 25 AND 26 LOW HOOK MOUNT INCLUDES CHOICE OF HKB CONVERGENCE NETWORK COMPATIBLE FSJOIN |
| 1 | PF200S17B | SIREN/LIGHT CONTROLLER WITH 17-BUTTON CONTROLLER 100/200 W OBDII INTEGRATION CAPABILITY INTEGRATED RUMBLER CAPABILITY AND INTEGRATED DUAL-TONE CAPABILITY |
| 1 | ES100C | SPEAKER DYNAMAX/ES100C 100 W HIGH OUTPUT COMPACT CLASS A |
| 1 | HKB-TAH21-HP | KIT HOOK; CHEVROLET TAHOE 2021-2023 |
| 1 | ESB-U | UNIVERSAL BRACKET ONLY - (1) ES100C |
| 1 | RBKIT2 | DUAL RUMBLER WOOFER FOR USE WITH PATHFINDER SIREN |
| 1 | RB-TAH21 | KIT; PAIR OF RUMBLER MOUNT BRACKETS WITH HARDWARE; CHEVROLET TAHOE 2021-2022 |
| 3 | EXPMOD24 | 24-CHANNEL EXPANSION MODULE |
| 1 | OBDCABLE20-GMCAN | 20-FT OBDII INTERFACE CABLE FOR USE ON 2021-2022 CHEVROLET TAHOE |
| 1 | PFSYNC-1 | ON SCENE SYNC MODULE |
| 2 | MPS63U-RBW | MICROPULSE ULTRA 6 TRI-COLOR CLEAR LENS (18) LEDS RED/BLUE/WHITE<br>Mounting Location : LC - PB LIGHT CHANNEL |
| 1 | MPS63U-RBW | MICROPULSE ULTRA 6 TRI-COLOR CLEAR LENS (18) LEDS RED/BLUE/WHITE<br>Mounting Location : PB145 - DS SIDE 45 |
| 1 | MPS63U-RBW | MICROPULSE ULTRA 6 TRI-COLOR CLEAR LENS (18) LEDS RED/BLUE/WHITE<br>Mounting Location : PB245 - PS SIDE 45 |
| 6 | MPS63U-RBW | MICROPULSE ULTRA 6 TRI-COLOR CLEAR LENS (18) LEDS RED/BLUE/WHITE |

# Quote

Date 9/14/2023
Quote # CAPQ-107443

CAP FLEET
2603 Taylors Valley Road
Belton, TX 76513
Office 254-773-1959

| QTY | Part # | Part Details |
|---|---|---|
| | | Mounting Location : RB1 - RUNNING BOARDS<br>Notes: 3EACH SIDE ALLEY |
| 1 | MPS63U-RBW | MICROPULSE ULTRA 6 TRI-COLOR CLEAR LENS (18) LEDS RED/BLUE/WHITE<br>Mounting Location : RQGL1 - REAR QTR GLASS -DS- LOW |
| 1 | MPS63U-RBW | MICROPULSE ULTRA 6 TRI-COLOR CLEAR LENS (18) LEDS RED/BLUE/WHITE<br>Mounting Location : RQGL2 - REAR QTR GLASS - PS - LOW |
| 6 | MPS63U-RBW | MICROPULSE ULTRA 6 TRI-COLOR CLEAR LENS (18) LEDS RED/BLUE/WHITE<br>Mounting Location : S - SPOILER<br>Notes: 2 WHITE ON REVERSE<br>2 RED ON BRAKES |
| 1 | MPSM6-TA21RS | PAIR OF SPOILER BRACKETS EACH BRACKET HOLDS (3) MPS6U LIGHTS; CHEVROLET TAHOE 2021-2022 |
| 3 | MPSM6U-FPIU20SMW | KIT OF TWO 20-DEGREE RUBBER MOUNTING WEDGES EACH WEDGE MOUNTS (1) MPS6U LIGHT TO EACH SIDE MIRROR ARM; FORD POLICE INTERCEPTOR UTILITY 2020-2023<br>Mounting Location : RB1 - RUNNING BOARDS |
| 2 | MPSM6-LB | GENERIC L-BRACKET FOR (1) MPS6U LIGHT<br>Notes: CARGO SIDE WINDOWS |
| 2 | 416300-RW | FLUSH MOUNT DUAL-COLOR CLEAR LENS 12/24 VDC (6) LEDS RED/WHITE<br>Wiring Instructions : WIRE DUO<br>Mounting Location : RP1 - REAR PILLAR - DS |
| 2 | 416300-RW | FLUSH MOUNT DUAL-COLOR CLEAR LENS 12/24 VDC (6) LEDS RED/WHITE<br>Wiring Instructions : WIRE DUO<br>Mounting Location : RB1 - REAR BUMPER<br>Notes: DS BETWEEN REVERSE SENSORS |
| 2 | 416300-BW | FLUSH MOUNT DUAL-COLOR CLEAR LENS 12/24 VDC (6) LEDS BLUE/WHITE<br>Wiring Instructions : WIRE DUO<br>Mounting Location : RP2 - REAR PILLAR PS |
| 2 | 416300-BW | FLUSH MOUNT DUAL-COLOR CLEAR LENS 12/24 VDC (6) LEDS BLUE/WHITE<br>Wiring Instructions : WIRE DUO<br>Mounting Location : RB1 - REAR BUMPER<br>Notes: PS BETWEEN REVERSE SENSORS |
| 2 | 416300-RB | FLUSH MOUNT DUAL-COLOR CLEAR LENS 12/24 VDC (6) LEDS BLUE/RED<br>Mounting Location : LG1 - LIFTGATE - RECESSED IN TRIM<br>Notes: BOTTOM LIP |
| 2 | 416302 | GROMMET KIT MOUNTS (2) 416300 SERIES IN BOTTOM OF LIFTGATE PANEL FOR AUXILIARY REAR WARNING WHEN LIFTGATE IS OPEN; CHEVROLET TAHOE 2021-2022 |
| 1 | MPSU-PB45V | PAIR OF 45-DEGREE SLANTED PUSH BUMPER MOUNTS WITH HARDWARE VERTICAL LIGHT ORIENTATION EACH BRACKET HOLDS (1) MPS3U/MPS6U/MPS12U LIGHT FITS MOST PUSH BUMPERS |
| 1 | CW0410-WR | 400 SERIES COMPARTMENT LIGHT 5.4" RED/WHITE 12/24VDC WITH TOUCH SWITCH<br>Notes: OVER CONSOLE |
| 1 | CW0411-WR | 400 SERIES COMPARTMENT LIGHT 11.8" RED/WHITE 12/24VDC WITH TOUCH SWITCH<br>Mounting Location : LG3 - LIFTGATE - ON INSIDE |
| 1 | PCH2B | PIONEER+ DUAL COMBO 12V BLK<br>Mounting Location : PB - FRONT CENTER |
| 1 | PBA206BU | PIONEER DUAL SIDE MT BAIL BLK |
| EXTERIOR | | |
| 1 | DFC-PB-TAH21 | PUSH BUMPER; 2021-2023 CHEVROLET TAHOE SSV/PPV |

# Quote

Date 9/14/2023
Quote # CAPQ-107443

**CAP FLEET**
2603 Taylors Valley Road
Belton, TX 76513
Office 254-773-1959

| QTY | Part # | Part Details |
|---|---|---|
| 1 | DFC-LG-TAH21 | LOWER GUARDS FOR USE WITH 2021-2023 CHEVROLET TAHOE PUSH BUMPER |
| 1 | DFC-UG-TAH21 | UPPER GUARDS FOR 2021-2023 CHEVROLET TAHOE PUSH BUMPER |
| 1 | DFC-TC2L-1 | TWO-LIGHT TOP-CHANNEL FOR CHEVROLET TAHOE PUSH BUMPER; USE WITH MPS6U LIGHTS (LIGHTS SOLD SEPARATELY) |
| PRISONER TRANSPORT EQUIPMENT | | |
| 1 | GK10342UHK | DUAL T-RAIL MOUNT; 2 UNIVERSAL XL; HANDCUFF KEY OVERRIDE; *FOR USE WITH ALL VEHICLES; *FOR USE WHEN MOUNTING TO FREESTANDING BASES<br>Wiring Instructions : WIRE GUNLOCK TO SMART SIREN |
| 1 | PRPSP5714T21A | POLY CENTER SLIDER WINDOW WITH EXPANDED METAL INSERT PARTITION - SPACE SAVER - INCLUDES RECESSED PANEL AND LOWER EXTENSION PANELS; CHEVY TAHOE PPV/SSV 2021-2022 |
| 1 | QK2023TAH21 | FULL REPLACEMENT TRANSPORT SEAT; TPO PLASTIC; WITH CENTER PULL SEAT BELTS; *INCLUDES REQUIRED: #12VS STATIONARY WINDOW VINYL COATED EXPANDED METAL CARGO PARTITION; *SEAT BELT RETRACTORS PRE-INSTALLED TO SAVE 30 MINUTES OF INSTALL TIME; *FOR USE WITHOUT 2ND ROW SEAT DELETE OPTION (CODE:ATZ); CHEVROLET TAHOE 21-23 |
| 1 | WS-21TH-SET | 2021-22 TAHOE DRIVER AND PASSENGER SIDE WINDOW SCREENS; DIAMOND-PUNCHED DESIGN |
| STORAGE | | |
| 1 | PP-TAH-2021-L3-1D-11-FB | (PP-TAH-2021-L3-1D-11-FB) TAHOE 2021-2023 HIGH SECURITY ONE 11" TALL DRAWER (PASSENGER SIDE) WITH FULL BACK WALL ON DRIVER SIDE - WILL NOT WORK WITH OTHER VENDOR REAR CARGO BARRIERS |
| 1 | PP-TAH-2021-3RD-L1-5X36-ELEC | (PP-TAH-2021-3RD-L1-5X36-ELEC) TAHOE 2021-2023 3RD DRAWER OPTION LOW SECURITY 20.5" WIDE X 5" X 36" *CUSTOM ELECTRONICS DRAWER* |

| QTY | Part # | Description |
|---|---|---|
| 1 | LABOR | LABOR |
| 1 | DISPOSAL | DISPOSAL FEE (FOR OEM PARTS NOT PICKED UP ON DELIVERY) |
| 1 | SHIPPING | SHIPPING |
| 1 | INSPECT | ALL CAP FLEET INSPECTIONS COME WITH AN AGENCY LIMITED LIFETIME WARRANTY |
| 1 | GRAPHICS | CUSTOM GRAPHICS |
| 1 | PDKIT | POWER DISTRIBUTION KIT |
| 1 | PROGFEE | PROGRAMMING FEE |
| 1 | DEALER | DEALER PREP |
| 1 | WIRING HARNESS | WIRING HARNESS |
| 1 | SHOP SUPPLIES | SHOP SUPPLIES |

| QTY | Make | Model | Used |
|---|---|---|---|
| 1 | Motorola | APX 6500 | ☐ |
| 1 | Axon | Axon | ☐ |
| 1 | MIsc | COAX | ☒ |
| 1 | Cradlepoint | IBR1700-1200M-B | ☒ |

# Quote

Date 9/14/2023
Quote # CAPQ-107443

**CAP FLEET**
2603 Taylors Valley Road
Belton, TX 76513
Office 254-773-1959

| QTY | Make | Model | Used |
|---|---|---|---|
| 1 | Havis | DOCK | ☒ |
| 1 | ANTENNA | CUSTOM | ☒ |
| 1 | ANTENNA | CUSTOM | ☒ |

# Quote

Date 3/21/2023
Quote # CAPQ-107445

**CAP FLEET**
2603 Taylors Valley Road
Belton, TX 76513
Office 254-773-1959

| Name / Address |
|---|
| Midland, City of<br>601 North Loraine Street, Midland, Texas 79701<br>United States |

| Ship To: |
|---|
| Midland, City of<br>Liz Thornton<br>601 North Loraine Street, Midland, Texas 79701 |

| | |
|---|---|
| **Salesperson:** | Alex Orrantia |
| **Email:** | tbd |
| **Contact Name:** | Jamie TBD |

| | |
|---|---|
| **Year:** | 2024 |
| **Make:** | Chevrolet |
| **Model:** | Silverado SSV |

Job Description: FEDERAL SIGNAL BUILD\
BUY BOARD 603-20 SILVERADO

## Quote Summary

| | |
|---|---|
| Per Vehicle Subtotal | $8,657.00 |
| Per Vehicle Tax | $0.00 |
| Per Vehicle Total | $8,657.00 |
| # Vehicles Quoted | 2 |

## Grand Total $17,314.00

****PRICES ARE VALID FOR 30 DAYS BUT ARE SUBJECT TO CHANGE DUE TO SUPPLY CHAIN CHALLENGES.
REVERIFY PRICING BEFORE ISSUING A PURCHASE ORDER. COMMODITY SURCHARGES MAY APPLY AFTER PO IS ISSUED.
ALL CANCELLED ORDERS ARE SUBJECT TO A 20% RESTOCKING FEE****

I hereby authorize the install work therein set forth to be done by CAP Fleet Upfitters, together with the furnishing by CAP Fleet Upfitters of the necessary parts and other material for such install and agree that CAP Fleet Upfitters is not responsible for any delays caused by unavailability or delayed availability of parts or material for any reason; that CAP Fleet Upfitters neither assumes or authorizes any other person to assume for CAP Fleet Upfitters any liability in connection with such install; that CAP Fleet Upfitters shall not be responsible for loss or damage to the above vehicle, or articles left therein; in case of fire, theft, any Act of God, or other cause beyond CAP Fleet Upfitters control; that CAP Fleet Upfitters employees may operate the above vehicle on streets, highways, or elsewhere for the purpose of testing and/or inspecting such vehicle.

WWW.CAPFLEET.COM

QUOTES ARE GOOD FOR 30 DAYS.

PLEASE SIGN BELOW IF ALL ITEMS & QUANTITIES ARE APPROVED.

X_____ Date: / /

# Quote

Date 3/21/2023
Quote # CAPQ-107445

CAP FLEET
2603 Taylors Valley Road
Belton, TX 76513
Office 254-773-1959

| QTY | Part # | Part Details |
|---|---|---|
| **EMERGENCY LIGHTING** | | |
| 1 | ESB-SILHD20ND | NO DRILL BRACKET ONLY - (1) ES100C ON DRIVER SIDE; CHEVROLET SILVERADO HD 2019-2021 |
| 1 | CW0410-WR | 400 SERIES COMPARTMENT LIGHT 5.4" RED/WHITE 12/24VDC WITH TOUCH SWITCH<br>Notes: OVER CONSOLE |
| 1 | PCH2B | PIONEER+ DUAL COMBO 12V BLK<br>Mounting Location : PB - FRONT CENTER |
| 1 | PBA206BU | PIONEER DUAL SIDE MT BAIL BLK |
| 1 | PF200H | SIREN/LIGHT CONTROLLER WITH HANDHELD CONTROLLER/MICROPHONE 100/200 W OBDII INTEGRATION CAPABILITY INTEGRATED RUMBLER CAPABILITY AND INTEGRATED DUAL-TONE CAPABILITY |
| 1 | ES100C | SPEAKER DYNAMAX/ES100C 100 W HIGH OUTPUT COMPACT CLASS A |
| 1 | SIFZJS | SPECTRALUX ILS LOW-PROFILE 8-HEAD SPLIT FRONT OFF-AXIS STYLE |
| 1 | XSM2-BRW-US | XSTREAM DUAL-HEAD WITH WIRE LEADS BLUE/RED/WHITE-BLUE/RED/WHITE<br>Mounting Location : URW1 - UPPER REAR WINDOW - DS |
| 1 | XSM2-BRW-US | XSTREAM DUAL-HEAD WITH WIRE LEADS BLUE/RED/WHITE-BLUE/RED/WHITE<br>Mounting Location : URW2 - UPPER REAR WINDOW - PS |
| **EXTERIOR** | | |
| 1 | 36-53955 | PUSH BUMPER ELITEXD; CHEVROLET SILVERADO 1500 2019-2021 (EXCL 2019 LD) & 1500 LTD 2022 (EXCL NEW BODY STYLE) |
| 1 | 36-53955W | WING WRAP ELITEXD; CHEVROLET SILVERADO 1500 2019-2021 (EXCL 2019 LD) & 1500 LTD 2022 (EXCL NEW BODY STYLE) |
| 1 | 36-6015 | ELITE 33.1" SOLID CHANNEL; PUSH BUMPER LIGHT CHANNEL 33.1 INCH SOLID |

| QTY | Part # | Description |
|---|---|---|
| 1 | LABOR | LABOR |
| 1 | SHIPPING | SHIPPING |
| 1 | INSPECT | ALL CAP FLEET INSPECTIONS COME WITH AN AGENCY LIMITED LIFETIME WARRANTY |
| 1 | DISPOSAL | DISPOSAL FEE (FOR OEM PARTS NOT PICKED UP ON DELIVERY) |
| 1 | PDKIT | POWER DISTRIBUTION KIT |
| 1 | PROGFEE | PROGRAMMING FEE |
| 1 | DEALER | DEALER PREP |
| 1 | WIRING HARNESS | WIRING HARNESS |
| 1 | SHOP SUPPLIES | SHOP SUPPLIES |

# Vendor Contract Information Summary

| | |
|---|---|
| Vendor | Caldwell Country Chevrolet II, LLC |
| Contact | Averyt Knapp |
| Phone | 9795676116 |
| Email | aknapp@caldwellcountry.com |
| Vendor Website | www.caldwellcountrychevrolet.com |
| TIN | 87-3266036 |
| Address Line 1 | 800 E Highway 21 |
| Vendor City | Caldwell |
| Vendor Zip | 77836 |
| Vendor State | TX |
| Vendor Country | USA |
| Delivery Days | 120 |
| Freight Terms | FOB Destination |
| Payment Terms | Net 30 days |
| Shipping Terms | Pre-paid and added to invoice |
| Ship Via | Common Carrier |
| Designated Dealer | No |
| EDGAR Received | Yes |
| Service-disabled Veteran Owned | No |
| Minority Owned | No |
| Women Owned | No |
| National | Yes |
| No Foreign Terrorist Orgs | Yes |
| No Israel Boycott | Yes |
| MWBE | No |
| ESCs | All Texas Regions |
| States | All States |
| Contract Name | Vehicles, Heavy Duty Trucks, Police Motorcycles, Parts, and Service Labor |
| Contract No. | 601-19 |
| Effective | 12/01/2019 |
| Expiration | 11/30/2023 |
| Accepts RFQs | Yes |
| Service Fee Note | Vehicle purchase orders are subject to a $400 service fee |
| Quote Reference Number | 601-19 |
| Return Policy | Negotiable |

# Vendor Contract Information Summary

**CALDWELL COUNTRY CHEVROLET**
**800 HWY. 21 E. CALDWELL, TEXAS 77836**
**BUYBOARD 601-19**

| | | | |
|---|---|---|---|
| **End User:** | City of Midland | **Caldwell Rep:** | David Lowry |
| **Contact:** | Jamie | **Phone:** | (903) 513-2316 |
| **Phone/ Email:** | TBD | **Date:** | Monday, October 16, 2023 |
| **Product Description:** | 2024 Chevrolet Tahoe (CC10706) 2WD 4dr Commercial | **Email:** | dlowry@caldwellcountry.com |

**A.** **Bid Series:** 31-Chevrolet Tahoe Police PPV — **A. Base Price:** $ 52,500.00

**B.** **Published Options [Itemize each below]**

| Code | Model Vehicle | | | | |
|---|---|---|---|---|---|
| CC10706 | 2024 Chevrolet Tahoe (CC10706) 2WD 4dr Commercial | | | | |
| **Code** | **Options** | **Bid Price** | **Code** | **Options** | **Bid Price** |
| 1FL | Commercial Preferred Equipment Group | $0.00 | IOR | Audio system, Chevrolet Infotainment 3 system, | $0.00 |
| 9C1 | Identifier for Police Package Vehicle | $0.00 | J55 | Brake system, heavy duty | $0.00 |
| ATD | Seat delete, third row passenger | $0.00 | K3W | Battery, 850 cold-cranking amps with 95 amp h | $0.00 |
| AZ3 | Seats, front 40/20/40 split-bench | $0.00 | L84 | Engine, 5.3L EcoTec3 V8 | $0.00 |
| BCV | Lock control, driver side auto door lock disa | $0.00 | RNQ | Wheel, full-size spare, matching 20 (50.8 cm) st | $0.00 |
| C6C | GVWR, 7400 lbs. (3357 kg) | $0.00 | XCS | Tires, 275/55R20SL all-season, blackwall, Fires | $0.00 |
| FE9 | Emissions, Federal requirements | $0.00 | Z56 | Suspension Package, heavy-duty, police-rated. | $0.00 |
| GBA | Black | $0.00 | | | |
| GU5 | Rear axle, 3.23 ratio | $0.00 | | | |
| | | | | **Total of B. Published Options** | $ - |

**C.** **Unpublished Options [Itemize each below, not to exceed 25%]**

| Unpublished Options | Bid Price | Unpublished Options | Bid Price |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | **Total of C. Unpublished Options:** | $ - |

| | | | |
|---|---|---|---|
| **D.** | **Registration, Inspection, Paperwork, Postage cost, Courthouse time, & Runner time:** | | |
| **E.** | **Upfitter/Quote Number:** CAPQ-107433 | $ | 27,970.00 |
| **F.** | **Delivery ETA:** | $ | - |
| **G.** | **Floor Plan Interest (for in-stock and/or equipped vehicles):** | $ | 1,600.00 |
| **H.** | **Lot Insurance (for in-stock and/or equipped vehicles):** | $ | 400.00 |
| **I.** | **Contract Price Adjustment:** | | |
| **J.** | **Additional Delivery Charge** 380 **miles** | $ | 1,140.00 |
| **K.** | **Subtotal** | $ | 83,610.00 |
| **L.** | **Quantity Ordered** 30 **x K =** | $ | 2,508,300.00 |
| **M.** | **Trade in:** | | |
| **N.** | **Coop Fee per purchase order** | **$** | **400.00** |
| **O.** | **Total purchase price with coop fee (Prices and availability are subject to change without notice)** | **$** | **2,508,700.00** |

**DISCLAIMER**

**PRICES AND AVAILABILITY CAN CHANGE AT ANY TIME WITHOUT FURTHER NOTICE DUE TO SUPPLY CHAIN CHALLENGES. REVERIFY PRICING BEFORE ISSUING A PURCHASE ORDER. FINAL PRICE IS NOT CONFIRMED UNTIL VEHICLE ORDER IS ACCEPTED BY THE MANUFACTURER. ACKNOWLEGDE BY EMAIL RECEIPT THAT THE PURCHASE ORDER WAS RECEIVED BY USA AUTOMOTIVE PARTNERS, LLC. (CALDWELL COUNTRY CHEVROLET, ROCKDALE COUNTRY FORD**

**CALDWELL COUNTRY CHEVROLET**
**800 HWY. 21 E. CALDWELL, TEXAS 77836**
**BUYBOARD 601-19**

| | | | |
|---|---|---|---|
| **End User:** | City of Midland | **Caldwell Rep:** | David Lowry |
| **Contact:** | Jamie | **Phone:** | (903) 513-2316 |
| **Phone/ Email:** | TBD | **Date:** | Wednesday, October 18, 2023 |
| **Product Description:** | 2023 Chevrolet Silverado 1500 (CK10743) 4WD Crew Cab 157" I | **Email:** | dlowry@caldwellcountry.com |

**A.** **Bid Series:** 25 - CHEVROLET 1500 PICKUP — **A. Base Price:** $ 54,500.00

**B.** **Published Options [Itemize each below]**

| Code | Model Vehicle | | | | |
|---|---|---|---|---|---|
| CK10743 | 2023 Chevrolet Silverado 1500 (CK10743) 4WD Crew Cab 157" LT | | | | |
| **Code** | **Options** | **Bid Price** | **Code** | **Options** | **Bid Price** |
| R7N | Not Equipped with Steering Column Lock, | $0.00 | C49 | Defogger, rear-window electric | $0.00 |
| L84 | Engine, 5.3L EcoTec3 V8 | $0.00 | C5Y | GVWR, 7100 lbs. (3221 kg) | $0.00 |
| K05 | Engine block heater | $0.00 | GAZ | Summit White | $0.00 |
| BAQ | Work Truck Package | $0.00 | GU5 | Rear axle, 3.23 ratio | $0.00 |
| RC5 | Tires, LT265/70R17C all-terrain, blackwall | $0.00 | H0U | Jet Black, Cloth seat trim | $0.00 |
| RD6 | Wheels, 17 x 8" (43.2 cm x 20.3 cm) Ultra S | $0.00 | KW7 | Alternator, 170 amps | $0.00 |
| 1LT | LT Preferred Equipment Group | $0.00 | MHT | Transmission, 10-speed automatic, electronically | $0.00 |
| AZ3 | Seats, front 40/20/40 split-bench | $0.00 | RHM | Tire, spare, LT265/70R17, all-terrain, blackwall | $0.00 |
| B59 | Remote Start Package | $0.00 | UTJ | Theft-deterrent system, unauthorized entry | $0.00 |
| | | | | **Total of B. Published Options** | $ - |

**C.** **Unpublished Options [Itemize each below, not to exceed 25%]**

| Unpublished Options | Bid Price | Unpublished Options | Bid Price |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | **Total of C. Unpublished Options:** | $ - |

| | | | |
|---|---|---|---|
| **D.** | **Registration, Inspection, Paperwork, Postage cost, Courthouse time, & Runner time:** | | |
| **E.** | **Upfitter/Quote Number:** CAPQ-107445 | | $ 8,657.00 |
| **F.** | **Delivery ETA:** | | $ - |
| **G.** | **Floor Plan Interest (for in-stock and/or equipped vehicles):** | | $ 1,600.00 |
| **H.** | **Lot Insurance (for in-stock and/or equipped vehicles):** | | $ 400.00 |
| **I.** | **Contract Price Adjustment:** | | |
| **J.** | **Additional Delivery Charge** 380 miles | | $ 1,140.00 |
| **K.** | **Subtotal** | | $ 66,297.00 |
| **L.** | **Quantity Ordered** 2 x K = | | $ 132,594.00 |
| **M.** | **Trade in:** | | |
| **N.** | **Coop Fee per purchase order** | | **$ 400.00** |
| **O.** | **Total purchase price with coop fee (Prices and availability are subject to change without notice)** | | **$ 132,994.00** |

**DISCLAIMER**

PRICES AND AVAILABILITY CAN CHANGE AT ANY TIME WITHOUT FURTHER NOTICE DUE TO SUPPLY CHAIN CHALLENGES. REVERIFY PRICING BEFORE ISSUING A PURCHASE ORDER. FINAL PRICE IS NOT CONFIRMED UNTIL VEHICLE ORDER IS ACCEPTED BY THE MANUFACTURER. ACKNOWLEGDE BY EMAIL RECEIPT THAT THE PURCHASE ORDER WAS RECEIVED BY USA AUTOMOTIVE PARTNERS, LLC. (CALDWELL COUNTRY CHEVROLET, ROCKDALE COUNTRY FORD

# Quote

Date 9/14/2023
Quote # CAPQ-107443

**CAP FLEET**
2603 Taylors Valley Road
Belton, TX 76513
Office 254-773-1959

**Name / Address**
Midland, City of
601 North Loraine Street, Midland, Texas 79701
United States

**Ship To:**
Midland, City of
Liz Thornton
601 North Loraine Street, Midland, Texas 79701

| | |
|---|---|
| **Salesperson:** | Alex Orrantia |
| **Email:** | tbd |
| **Contact Name:** | Jamie TBD |

| | |
|---|---|
| **Year:** | 2024 |
| **Make:** | Chevrolet |
| **Model:** | TAHOE PPV |

Job Description: FEDERAL SIGNAL BUILD\
BUY BOARD 603-20 TAHOE

## Quote Summary

| | |
|---|---|
| Per Vehicle Subtotal | $27,970.00 |
| Per Vehicle Tax | $0.00 |
| Per Vehicle Total | $27,970.00 |
| # Vehicles Quoted | 30 |

## Grand Total $839,100.00

****PRICES ARE VALID FOR 30 DAYS BUT ARE SUBJECT TO CHANGE DUE TO SUPPLY CHAIN CHALLENGES.
REVERIFY PRICING BEFORE ISSUING A PURCHASE ORDER. COMMODITY SURCHARGES MAY APPLY AFTER PO IS ISSUED.
ALL CANCELLED ORDERS ARE SUBJECT TO A 20% RESTOCKING FEE****

I hereby authorize the install work therein set forth to be done by CAP Fleet Upfitters, together with the furnishing by CAP Fleet Upfitters of the necessary parts and other material for such install and agree that CAP Fleet Upfitters is not responsible for any delays caused by unavailability or delayed availability of parts or material for any reason; that CAP Fleet Upfitters neither assumes or authorizes any other person to assume for CAP Fleet Upfitters any liability in connection with such install; that CAP Fleet Upfitters shall not be responsible for loss or damage to the above vehicle, or articles left therein; in case of fire, theft, any Act of God, or other cause beyond CAP Fleet Upfitters control; that CAP Fleet Upfitters employees may operate the above vehicle on streets, highways, or elsewhere for the purpose of testing and/or inspecting such vehicle.

WWW.CAPFLEET.COM

QUOTES ARE GOOD FOR 30 DAYS.

PLEASE SIGN BELOW IF ALL ITEMS & QUANTITIES ARE APPROVED.

X_____ Date: / /

# Quote

Date 9/14/2023
Quote # CAPQ-107443

**CAP FLEET**
2603 Taylors Valley Road
Belton, TX 76513
Office 254-773-1959

| QTY | Part # | Part Details |
|---|---|---|
| **CONSOLE/MDT** | | |
| 1 | C-EB30-CH7-1P | 1-PIECE EQUIPMENT MOUNTING BRACKET; 3" MOUNTING SPACE; FITS M/A-COM CH-721 |
| 1 | C-EB40-SSP-1P | 1-PIECE EQUIPMENT MOUNTING BRACKET; 4" MOUNTING SPACE; FITS FEDERAL SIGNAL SMART SIREN SSP3000 |
| 1 | C-EB40-PAN-1P | 1-PIECE EQUIPMENT MOUNTING BRACKET; 4" MOUNTING SPACE; FITS MISC. PANASONIC AG-CPD20 |
| 2 | MK-2CL | MULTI-POSITION MICROPHONE HOLDER W/CLIP |
| 2 | MMBP | MAGNETIC MIC KIT |
| 1 | C-HDM-204 | 8.5" HEAVY-DUTY TELESCOPING POLE; SIDE MOUNT; SHORT HANDLE |
| 1 | C-MD-112 | 11" SLIDE OUT LOCKING SWING ARM WITH MOTION ADAPTER |
| 1 | PP-2021-TAH-SFF | (PP-2021-TAH-SFF) 2021-2023 CHEVY TAHOE SHORTY CENTER CONSOLE WITH FLIP FORWARD ARM REST. |
| **ELECTRONICS** | | |
| 1 | CG-X | CHARGEGUARD-SELECT |
| **EMERGENCY LIGHTING** | | |
| 1 | FED22VALR51-DE | 51" DUO VALOR BAR FULLY POPULATED (DRIVER SIDE RED/WHITE FRONT; RED/AMBER REAR; PASSENGER SIDE BLUE/WHITE FRONT; BLUE/AMBER REAR) PF200S17B PATHFINDER SIREN; EXPMOD24 EXPANSION MODULE; PFSYNC-1 SYNC; OBD*; ES100C SPEAKER; ESB-U; HKB* |
| 1 | VALR51J-P1L | 51" VALOR RED/BLUE WARNING LIGHTS ALL 2-COLOR EXCEPT POSITIONS 15 16 25 AND 26 LOW HOOK MOUNT INCLUDES CHOICE OF HKB CONVERGENCE NETWORK COMPATIBLE FSJOIN |
| 1 | PF200S17B | SIREN/LIGHT CONTROLLER WITH 17-BUTTON CONTROLLER 100/200 W OBDII INTEGRATION CAPABILITY INTEGRATED RUMBLER CAPABILITY AND INTEGRATED DUAL-TONE CAPABILITY |
| 1 | ES100C | SPEAKER DYNAMAX/ES100C 100 W HIGH OUTPUT COMPACT CLASS A |
| 1 | HKB-TAH21-HP | KIT HOOK; CHEVROLET TAHOE 2021-2023 |
| 1 | ESB-U | UNIVERSAL BRACKET ONLY - (1) ES100C |
| 1 | RBKIT2 | DUAL RUMBLER WOOFER FOR USE WITH PATHFINDER SIREN |
| 1 | RB-TAH21 | KIT; PAIR OF RUMBLER MOUNT BRACKETS WITH HARDWARE; CHEVROLET TAHOE 2021-2022 |
| 3 | EXPMOD24 | 24-CHANNEL EXPANSION MODULE |
| 1 | OBDCABLE20-GMCAN | 20-FT OBDII INTERFACE CABLE FOR USE ON 2021-2022 CHEVROLET TAHOE |
| 1 | PFSYNC-1 | ON SCENE SYNC MODULE |
| 2 | MPS63U-RBW | MICROPULSE ULTRA 6 TRI-COLOR CLEAR LENS (18) LEDS RED/BLUE/WHITE<br>Mounting Location : LC - PB LIGHT CHANNEL |
| 1 | MPS63U-RBW | MICROPULSE ULTRA 6 TRI-COLOR CLEAR LENS (18) LEDS RED/BLUE/WHITE<br>Mounting Location : PB145 - DS SIDE 45 |
| 1 | MPS63U-RBW | MICROPULSE ULTRA 6 TRI-COLOR CLEAR LENS (18) LEDS RED/BLUE/WHITE<br>Mounting Location : PB245 - PS SIDE 45 |
| 6 | MPS63U-RBW | MICROPULSE ULTRA 6 TRI-COLOR CLEAR LENS (18) LEDS RED/BLUE/WHITE |

# Quote

Date 9/14/2023
Quote # CAPQ-107443

**CAP FLEET**
2603 Taylors Valley Road
Belton, TX 76513
Office 254-773-1959

| QTY | Part # | Part Details |
|---|---|---|
| | | Mounting Location : RB1 - RUNNING BOARDS<br>Notes: 3EACH SIDE ALLEY |
| 1 | MPS63U-RBW | MICROPULSE ULTRA 6 TRI-COLOR CLEAR LENS (18) LEDS RED/BLUE/WHITE<br>Mounting Location : RQGL1 - REAR QTR GLASS -DS- LOW |
| 1 | MPS63U-RBW | MICROPULSE ULTRA 6 TRI-COLOR CLEAR LENS (18) LEDS RED/BLUE/WHITE<br>Mounting Location : RQGL2 - REAR QTR GLASS - PS - LOW |
| 6 | MPS63U-RBW | MICROPULSE ULTRA 6 TRI-COLOR CLEAR LENS (18) LEDS RED/BLUE/WHITE<br>Mounting Location : S - SPOILER<br>Notes: 2 WHITE ON REVERSE<br>2 RED ON BRAKES |
| 1 | MPSM6-TA21RS | PAIR OF SPOILER BRACKETS EACH BRACKET HOLDS (3) MPS6U LIGHTS; CHEVROLET TAHOE 2021-2022 |
| 3 | MPSM6U-FPIU20SMW | KIT OF TWO 20-DEGREE RUBBER MOUNTING WEDGES EACH WEDGE MOUNTS (1) MPS6U LIGHT TO EACH SIDE MIRROR ARM; FORD POLICE INTERCEPTOR UTILITY 2020-2023<br>Mounting Location : RB1 - RUNNING BOARDS |
| 2 | MPSM6-LB | GENERIC L-BRACKET FOR (1) MPS6U LIGHT<br>Notes: CARGO SIDE WINDOWS |
| 2 | 416300-RW | FLUSH MOUNT DUAL-COLOR CLEAR LENS 12/24 VDC (6) LEDS RED/WHITE<br>Wiring Instructions : WIRE DUO<br>Mounting Location : RP1 - REAR PILLAR - DS |
| 2 | 416300-RW | FLUSH MOUNT DUAL-COLOR CLEAR LENS 12/24 VDC (6) LEDS RED/WHITE<br>Wiring Instructions : WIRE DUO<br>Mounting Location : RB1 - REAR BUMPER<br>Notes: DS BETWEEN REVERSE SENSORS |
| 2 | 416300-BW | FLUSH MOUNT DUAL-COLOR CLEAR LENS 12/24 VDC (6) LEDS BLUE/WHITE<br>Wiring Instructions : WIRE DUO<br>Mounting Location : RP2 - REAR PILLAR PS |
| 2 | 416300-BW | FLUSH MOUNT DUAL-COLOR CLEAR LENS 12/24 VDC (6) LEDS BLUE/WHITE<br>Wiring Instructions : WIRE DUO<br>Mounting Location : RB1 - REAR BUMPER<br>Notes: PS BETWEEN REVERSE SENSORS |
| 2 | 416300-RB | FLUSH MOUNT DUAL-COLOR CLEAR LENS 12/24 VDC (6) LEDS BLUE/RED<br>Mounting Location : LG1 - LIFTGATE - RECESSED IN TRIM<br>Notes: BOTTOM LIP |
| 2 | 416302 | GROMMET KIT MOUNTS (2) 416300 SERIES IN BOTTOM OF LIFTGATE PANEL FOR AUXILIARY REAR WARNING WHEN LIFTGATE IS OPEN; CHEVROLET TAHOE 2021-2022 |
| 1 | MPSU-PB45V | PAIR OF 45-DEGREE SLANTED PUSH BUMPER MOUNTS WITH HARDWARE VERTICAL LIGHT ORIENTATION EACH BRACKET HOLDS (1) MPS3U/MPS6U/MPS12U LIGHT FITS MOST PUSH BUMPERS |
| 1 | CW0410-WR | 400 SERIES COMPARTMENT LIGHT 5.4" RED/WHITE 12/24VDC WITH TOUCH SWITCH<br>Notes: OVER CONSOLE |
| 1 | CW0411-WR | 400 SERIES COMPARTMENT LIGHT 11.8" RED/WHITE 12/24VDC WITH TOUCH SWITCH<br>Mounting Location : LG3 - LIFTGATE - ON INSIDE |
| 1 | PCH2B | PIONEER+ DUAL COMBO 12V BLK<br>Mounting Location : PB - FRONT CENTER |
| 1 | PBA206BU | PIONEER DUAL SIDE MT BAIL BLK |
| EXTERIOR | | |
| 1 | DFC-PB-TAH21 | PUSH BUMPER; 2021-2023 CHEVROLET TAHOE SSV/PPV |

# Quote

Date 9/14/2023
Quote # CAPQ-107443

**CAP FLEET**
2603 Taylors Valley Road
Belton, TX 76513
Office 254-773-1959

| QTY | Part # | Part Details |
|---|---|---|
| 1 | DFC-LG-TAH21 | LOWER GUARDS FOR USE WITH 2021-2023 CHEVROLET TAHOE PUSH BUMPER |
| 1 | DFC-UG-TAH21 | UPPER GUARDS FOR 2021-2023 CHEVROLET TAHOE PUSH BUMPER |
| 1 | DFC-TC2L-1 | TWO-LIGHT TOP-CHANNEL FOR CHEVROLET TAHOE PUSH BUMPER; USE WITH MPS6U LIGHTS (LIGHTS SOLD SEPARATELY) |
| PRISONER TRANSPORT EQUIPMENT | | |
| 1 | GK10342UHK | DUAL T-RAIL MOUNT; 2 UNIVERSAL XL; HANDCUFF KEY OVERRIDE; *FOR USE WITH ALL VEHICLES; *FOR USE WHEN MOUNTING TO FREESTANDING BASES<br>Wiring Instructions : WIRE GUNLOCK TO SMART SIREN |
| 1 | PRPSP5714T21A | POLY CENTER SLIDER WINDOW WITH EXPANDED METAL INSERT PARTITION - SPACE SAVER - INCLUDES RECESSED PANEL AND LOWER EXTENSION PANELS; CHEVY TAHOE PPV/SSV 2021-2022 |
| 1 | QK2023TAH21 | FULL REPLACEMENT TRANSPORT SEAT; TPO PLASTIC; WITH CENTER PULL SEAT BELTS; *INCLUDES REQUIRED: #12VS STATIONARY WINDOW VINYL COATED EXPANDED METAL CARGO PARTITION; *SEAT BELT RETRACTORS PRE-INSTALLED TO SAVE 30 MINUTES OF INSTALL TIME; *FOR USE WITHOUT 2ND ROW SEAT DELETE OPTION (CODE:ATZ); CHEVROLET TAHOE 21-23 |
| 1 | WS-21TH-SET | 2021-22 TAHOE DRIVER AND PASSENGER SIDE WINDOW SCREENS; DIAMOND-PUNCHED DESIGN |
| STORAGE | | |
| 1 | PP-TAH-2021-L3-1D-11-FB | (PP-TAH-2021-L3-1D-11-FB) TAHOE 2021-2023 HIGH SECURITY ONE 11" TALL DRAWER (PASSENGER SIDE) WITH FULL BACK WALL ON DRIVER SIDE - WILL NOT WORK WITH OTHER VENDOR REAR CARGO BARRIERS |
| 1 | PP-TAH-2021-3RD-L1-5X36-ELEC | (PP-TAH-2021-3RD-L1-5X36-ELEC) TAHOE 2021-2023 3RD DRAWER OPTION LOW SECURITY 20.5" WIDE X 5" X 36" *CUSTOM ELECTRONICS DRAWER* |

| QTY | Part # | Description |
|---|---|---|
| 1 | LABOR | LABOR |
| 1 | DISPOSAL | DISPOSAL FEE (FOR OEM PARTS NOT PICKED UP ON DELIVERY) |
| 1 | SHIPPING | SHIPPING |
| 1 | INSPECT | ALL CAP FLEET INSPECTIONS COME WITH AN AGENCY LIMITED LIFETIME WARRANTY |
| 1 | GRAPHICS | CUSTOM GRAPHICS |
| 1 | PDKIT | POWER DISTRIBUTION KIT |
| 1 | PROGFEE | PROGRAMMING FEE |
| 1 | DEALER | DEALER PREP |
| 1 | WIRING HARNESS | WIRING HARNESS |
| 1 | SHOP SUPPLIES | SHOP SUPPLIES |

| QTY | Make | Model | Used |
|---|---|---|---|
| 1 | Motorola | APX 6500 | ☐ |
| 1 | Axon | Axon | ☐ |
| 1 | MIsc | COAX | ☒ |
| 1 | Cradlepoint | IBR1700-1200M-B | ☒ |

# Quote

Date 9/14/2023
Quote # CAPQ-107443

**CAP FLEET**
2603 Taylors Valley Road
Belton, TX 76513
Office 254-773-1959

| QTY | Make | Model | Used |
|---|---|---|---|
| 1 | Havis | DOCK | ☒ |
| 1 | ANTENNA | CUSTOM | ☒ |
| 1 | ANTENNA | CUSTOM | ☒ |

# Quote

Date 3/21/2023
Quote # CAPQ-107445

**CAP FLEET**
2603 Taylors Valley Road
Belton, TX 76513
Office 254-773-1959

| Name / Address |
|---|
| Midland, City of<br>601 North Loraine Street, Midland, Texas 79701<br>United States |

| Ship To: |
|---|
| Midland, City of<br>Liz Thornton<br>601 North Loraine Street, Midland, Texas 79701 |

| | |
|---|---|
| **Salesperson:** | Alex Orrantia |
| **Email:** | tbd |
| **Contact Name:** | Jamie TBD |

| | |
|---|---|
| **Year:** | 2024 |
| **Make:** | Chevrolet |
| **Model:** | Silverado SSV |

Job Description: FEDERAL SIGNAL BUILD\
BUY BOARD 603-20 SILVERADO

## Quote Summary

| | |
|---|---|
| Per Vehicle Subtotal | $8,657.00 |
| Per Vehicle Tax | $0.00 |
| Per Vehicle Total | $8,657.00 |
| # Vehicles Quoted | 2 |

## Grand Total $17,314.00

****PRICES ARE VALID FOR 30 DAYS BUT ARE SUBJECT TO CHANGE DUE TO SUPPLY CHAIN CHALLENGES.
REVERIFY PRICING BEFORE ISSUING A PURCHASE ORDER. COMMODITY SURCHARGES MAY APPLY AFTER PO IS ISSUED.
ALL CANCELLED ORDERS ARE SUBJECT TO A 20% RESTOCKING FEE****

I hereby authorize the install work therein set forth to be done by CAP Fleet Upfitters, together with the furnishing by CAP Fleet Upfitters of the necessary parts and other material for such install and agree that CAP Fleet Upfitters is not responsible for any delays caused by unavailability or delayed availability of parts or material for any reason; that CAP Fleet Upfitters neither assumes or authorizes any other person to assume for CAP Fleet Upfitters any liability in connection with such install; that CAP Fleet Upfitters shall not be responsible for loss or damage to the above vehicle, or articles left therein; in case of fire, theft, any Act of God, or other cause beyond CAP Fleet Upfitters control; that CAP Fleet Upfitters employees may operate the above vehicle on streets, highways, or elsewhere for the purpose of testing and/or inspecting such vehicle.

WWW.CAPFLEET.COM

QUOTES ARE GOOD FOR 30 DAYS.

PLEASE SIGN BELOW IF ALL ITEMS & QUANTITIES ARE APPROVED.

X_____ Date: / /

# Quote

Date 3/21/2023
Quote # CAPQ-107445

CAP FLEET
2603 Taylors Valley Road
Belton, TX 76513
Office 254-773-1959

| QTY | Part # | Part Details |
|---|---|---|
| **EMERGENCY LIGHTING** | | |
| 1 | ESB-SILHD20ND | NO DRILL BRACKET ONLY - (1) ES100C ON DRIVER SIDE; CHEVROLET SILVERADO HD 2019-2021 |
| 1 | CW0410-WR | 400 SERIES COMPARTMENT LIGHT 5.4" RED/WHITE 12/24VDC WITH TOUCH SWITCH<br>Notes: OVER CONSOLE |
| 1 | PCH2B | PIONEER+ DUAL COMBO 12V BLK<br>Mounting Location : PB - FRONT CENTER |
| 1 | PBA206BU | PIONEER DUAL SIDE MT BAIL BLK |
| 1 | PF200H | SIREN/LIGHT CONTROLLER WITH HANDHELD CONTROLLER/MICROPHONE 100/200 W OBDII INTEGRATION CAPABILITY INTEGRATED RUMBLER CAPABILITY AND INTEGRATED DUAL-TONE CAPABILITY |
| 1 | ES100C | SPEAKER DYNAMAX/ES100C 100 W HIGH OUTPUT COMPACT CLASS A |
| 1 | SIFZJS | SPECTRALUX ILS LOW-PROFILE 8-HEAD SPLIT FRONT OFF-AXIS STYLE |
| 1 | XSM2-BRW-US | XSTREAM DUAL-HEAD WITH WIRE LEADS BLUE/RED/WHITE-BLUE/RED/WHITE<br>Mounting Location : URW1 - UPPER REAR WINDOW - DS |
| 1 | XSM2-BRW-US | XSTREAM DUAL-HEAD WITH WIRE LEADS BLUE/RED/WHITE-BLUE/RED/WHITE<br>Mounting Location : URW2 - UPPER REAR WINDOW - PS |
| **EXTERIOR** | | |
| 1 | 36-53955 | PUSH BUMPER ELITEXD; CHEVROLET SILVERADO 1500 2019-2021 (EXCL 2019 LD) & 1500 LTD 2022 (EXCL NEW BODY STYLE) |
| 1 | 36-53955W | WING WRAP ELITEXD; CHEVROLET SILVERADO 1500 2019-2021 (EXCL 2019 LD) & 1500 LTD 2022 (EXCL NEW BODY STYLE) |
| 1 | 36-6015 | ELITE 33.1" SOLID CHANNEL; PUSH BUMPER LIGHT CHANNEL 33.1 INCH SOLID |

| QTY | Part # | Description |
|---|---|---|
| 1 | LABOR | LABOR |
| 1 | SHIPPING | SHIPPING |
| 1 | INSPECT | ALL CAP FLEET INSPECTIONS COME WITH AN AGENCY LIMITED LIFETIME WARRANTY |
| 1 | DISPOSAL | DISPOSAL FEE (FOR OEM PARTS NOT PICKED UP ON DELIVERY) |
| 1 | PDKIT | POWER DISTRIBUTION KIT |
| 1 | PROGFEE | PROGRAMMING FEE |
| 1 | DEALER | DEALER PREP |
| 1 | WIRING HARNESS | WIRING HARNESS |
| 1 | SHOP SUPPLIES | SHOP SUPPLIES |

# City Council Meeting

**Item Number:** 11

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Erika Martinez, Manager, Purchasing

**Subject:** RESOLUTION RESCINDING RESOLUTION 2023-115; REJECTING THE SOLE PROPOSAL RECEIVED; AND AUTHORIZING THE CITY MANAGER TO ADVERTISE A REQUEST FOR COMPETITIVE SEALED PROPOSALS FOR THE NORTH CITIZEN COLLECTION STATION PROJECT AND THE WEST CITIZEN COLLECTION STATION PROJECT (DISTRICT: ALL) (GENERAL SERVICES)

---

**Purpose:**

Resolution to rescind Resolution 2023-115; reject the sole proposal received and authorizing the City Manager or the City Manager's designee to: (i) reissue a request for proposals for the North Citizen Collection Station Project and the West Citizen Collection Station Project.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

No funding is required.

**Discussion:**

The City Manager and/or City Manager's designee authorized the issuance of a request for proposals for the North Citizen Collection Station Project and the West Citizen Collection Station Project for the Solid Waste Department. The proposal request was sent to one hundred sixty (160) vendors. We received a sole bid from Onyx General Contractors, LLC. Staff recommends rejecting the sole proposal received for North Citizen Collection Station Project and the West Citizen Collection Station Project. Please see the attached memo from Jeffery Ahrlett, Solid Waste Director, for more information.

Therefore, please consider a resolution to rescind Resolution 2023-115; reject the sole proposal received and authorizing the City Manager or the City Manager's designee to: (i) reissue a request for proposals for the North Citizen Collection Station Project and the West Citizen Collection Station Project for the Solid Waste Department.

Morris William Jr.

City Manager's Office

**RESOLUTION NO.** 2023-115

**RESOLUTION AWARDING A CONTRACT FOR THE NORTH CITIZEN COLLECTION STATION PROJECT AND THE WEST CITIZEN COLLECTION STATION PROJECT TO ONYX GENERAL CONTRACTORS, LLC, FOR A COST OF $6,422,091.20; AND TRANSFERRING AND APPROPRIATING FUNDS**

**WHEREAS,** Motion 079-2023 approved plans and specifications and authorized the advertisement for competitive sealed proposals for the North Citizen Collection Station Project and the West Citizen Collection Station Project; and

**WHEREAS,** proposals were opened on August 16, 2023, with the sole proposal being submitted by Onyx General Contractors, LLC, as shown on the tabulation attached hereto as Exhibit "A" and incorporated herein for all purposes; and

**WHEREAS,** the City Council finds the amount proposed by Onyx General Contractors, LLC, to be fair and reasonable; and

**WHEREAS,** the City Council finds it to be in the public interest to award a contract to Onyx General Contractors, LLC, for the North Citizen Collection Station Project and the West Citizen Collection Station Project;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the City Manager and City Secretary are hereby authorized and directed to execute and attest, respectively, on behalf of the City of Midland, a contract with Onyx General Contractors, LLC, for the North Citizen Collection Station Project and the West Citizen Collection Station Project for a cost of $6,422,091.20. Said contract to be kept on file in the office of the City Secretary, referenced by the date and number of this Resolution.

**SECTION TWO.** That $1,000,000.00 shall be appropriated from the General Fund unappropriated fund balance and transferred to a project in the Sanitation Construction Fund. $5,422,091.20 shall be appropriated from the Solid Waste Fund unappropriated fund balance

and will be transferred and appropriated to a project for said purposes.

**SECTION THREE.** That the City Comptroller is hereby authorized and directed to pay Onyx General Contractors, LLC, pursuant to the terms of said contract upon receipt of proper invoices or statements approved by the City Manager.

On motion of Council member Ladd, seconded by Council member Poole, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the 12th day of September, A.D., 2023, by the following vote:

Council members voting "AYE": Stretcher Burkes, Corrales, Poole, Blong, Dufford, Ladd, Norman

Council members voting "NAY": None

Lori Merritt Blong, Mayor

ATTEST:

Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

Regina Stephenson, General Services Director

APPROVED ONLY AS TO FORM:

John Ohlemiller, City Attorney

S:\Resolutions\Purchase\2023\Contracts\Award Contract - North and West Citizen Collection Station Projects.wpd

☑ APPR

2023-115

# City Council Meeting

**Item Number:** 7

**Meeting Date:** September 12, 2023

**To:** City Council / City Manager

**From:** Erika Martinez, Manager, Purchasing

**Subject:** RESOLUTION AWARDING A CONTRACT FOR THE NORTH CITIZEN COLLECTION STATION PROJECT AND THE WEST CITIZEN COLLECTION STATION PROJECT TO ONYX GENERAL CONTRACTORS, LLC, FOR A COST OF $6,422,091.20; AND TRANSFERRING AND APPROPRIATING FUNDS (DISTRICT: ALL) (GENERAL SERVICES)

---

**Purpose:**

Resolution awarding a contract for the North Citizen Collection Station Project and the West Citizen Collection Station Project for the Solid Waste Department to Onyx General Contractors, LLC. of Midland, Texas for a cost of $6,422,091.20.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

$1,000,000 will be appropriated from General Fund Unappropriated Fund Balance and Transferred to a project in the Sanitation Construction Fund. This was funding received from a surface use agreement in 2022 and was deposited into the General Fund but meant to be used toward the Collection Station. $5,422,091.20 will be appropriated from the Solid Waste Fund unappropriated fund balance and will be transferred and appropriated to a project.

**Discussion:**

Motion 079-2023 approved the specifications and authorized advertisement for bids for the North Citizen Collection Station Project and West Citizen Collection Station Project for the Solid Waste Department. The bid was sent to one hundred sixty (160) vendors. We received a sole bid from Onyx General Contractors, LLC. Staff recommends the acceptance of the sole bid received from Onyx General Contractors, LLC for the construction of the North Citizen Collection Station

Project and West Citizen Collection Stations. Please see the attached memo from Jeffery Ahrlett, Solid Waste Director, for more information.

Therefore, please consider a resolution awarding a contract for the the North Citizen Collection Station Project and the West Citizen Collection Station Project for the Solid Waste Department to Onyx General Contractors, LLC. of Midland, Texas for a cost of $6,422,091.20.

Tina Daugherty
City Manager's Office

MIDLAND
Solid Waste

***INTEROFFICE MEMORANDUM***

**TO:** **Erika Martinez, Purchasing Manager**

**FROM:** **Jeffery Ahrlett, Director of Solid Waste**

**SUBJECT:** **Awarding a contract for the Citizen Collection Station North and Citizen Collection Station West Construction.**

**DATE:** **September 12, 2023**

Requesting a resolution awarding a contract for the Citizen Collection Station North and Citizen Collection Station West projects. Award a contract to bidder Onyx General Contractors, LLC. Of Midland, Texas for a cost of $6,422,091.20.

Onyx has proven experience in the construction of Citizen Collection Station facilities. The Solid Waste Department has worked with Onyx General Contractors in the past as they have built the current Citizen Collection station, as well as the City of Midland Landfill facility which includes a citizen collection station.

Due to the continued growth throughout the City of Midland, Solid Waste believes it is necessary to construct two Citizen Collection Stations to better serve our residents. The North Citizen Collection Station will be located on North 349 near the new water tower. The West Citizen Collection Station will be located on business 20 near Big Sky Drive in.

Solid Waste is seeking council approval to accept the bid of $6,422,091.20 from Onyx General Contractors, LLC. for the Citizen Collection Station North and Citizen Collection Station West construction project.

**Parkhill**

August 23, 2023

Ms. Erika Munoz Martinez, CPM
Purchasing Manager
City of Midland
PO Box 1152
Midland, TX 79702

Re: 6119.21 City of Midland West and North Citizens' Collection Stations
Recommendation for Award

Dear Ms. Martinez:

We reviewed the one Proposal for the noted Project received August 16, 2023, and determined that it was submitted in accordance with guidelines established by the Proposal Documents and those procedures adopted by the City of Midland. While compiling the detailed proposal tabulation, it was found that there were mathematical errors in the totals.

We recommend the Construction Contract for the City of Midland West and North Citizens' Collection Station project be awarded to Onyx General Contractors, LLC per the unit price multiplied by quantity per the proposal tabulation. **Contract amounts for the West Site of $3,026,672.80 and for the North Site of $3,395,418.40, combined total of $ 6,422,091.20.**

For anything further, please contact me at 469.200.7373 if you have questions or wish to discuss this matter further.

Sincerely,

PARKHILL

By _____
Spenser Harvey, PE
Project Manager

SJH/pg
Enclosures


800 South Polk Street | Suite 200 | Amarillo, Texas 79101 | 806.376.8600 | parkhill.com

**Parkhill**

## City of Midland West and North Citizens' Collection Stations

## City of Midland, Texas

## August 16, 2023

## 2:00 PM Local Time

| | PROPOSAL BID | | | Onyx General Contractors, LLC<br>1010 S. FM 1788<br>Midland, Texas 79706 | |
|---|---|---|---|---|---|
| Item No. | Description | Quantity | Unit | Unit Price | Amount |
| | **West Citizen Collection Station** | | | | |
| 1 | Mobilization (5% Maximum) | 1 | LS | $45,000.00 | $45,000.00 |
| 2 | Erosion Control | 1 | LS | $5,000.00 | $5,000.00 |
| 3 | Excavation | 6,800 | CY | $7.80 | $53,040.00 |
| 4 | Embankment (fill) | 12,800 | CY | $19.08 | $244,224.00 |
| 5 | Furnish and install 3-inch thick Type "B " HMAC, 9" base | 800 | SY | $68.28 | $54,624.00 |
| 6 | Furnish and install 8-Inch thick Concrete pavement and | 2,100 | SY | $134.30 | $282,030.00 |
| 7 | Concrete Drainage Gutter | 400 | LF | $40.24 | $16,096.00 |
| 8 | Concrete Retaining Wall and Steel Rails | 920 | LF | $1,200.00 | $1,104,000.00 |
| 9 | Entrance Gate | 1 | LS | $15,270.00 | $15,270.00 |
| 10 | Exit Gate | 1 | LS | $3,870.00 | $3,870.00 |
| 11 | 6' Chain Link Fence | 870 | LF | $32.94 | $28,657.80 |
| 12 | Pavement Markings & Striping | 1 | LS | $3,000.00 | $3,000.00 |
| 13 | Schedule 80 Waterline | 720 | LF | $63.60 | $45,792.00 |
| 14 | SDR 35 Sewerline | 100 | LF | $63.60 | $6,360.00 |
| 15 | Traffic Signage | 33 | EA | $720.00 | $23,760.00 |
| 16 | 40'x60' Metal Building | 1 | LS | $850,000.00 | $850,000.00 |
| 17 | Electrical Site Work | 1 | LS | $174,298.00 | $174,298.00 |
| 18 | Septic Tank | 1 | LS | $53,651.00 | $53,651.00 |
| 19 | Water Well | 1 | LS | $18,000.00 | $18,000.00 |
| | **SUBTOTAL** | | | | **$3,026,672.80** |
| | | | | | |
| | **North Citizen Collection Station** | | | | |
| 20 | Mobilization (5% Maximum) | 1 | LS | $45,000.00 | $45,000.00 |
| 21 | Erosion Control | 1 | LS | $5,000.00 | $5,000.00 |
| 22 | Excavation | 4,400 | CY | $7.80 | $34,320.00 |
| 23 | Embankment (fill) | 3,600 | CY | $11.10 | $39,960.00 |
| 24 | Furnish and install 3-inch thick Type "B " HMAC, 9" base course, 12" Subgrade | 800 | SY | $68.28 | $54,624.00 |
| 25 | Furnish and install 8-Inch thick Concrete pavement and reinforcement, 6" base course, 12" Subgrade | 2,400 | SY | $134.20 | $322,080.00 |
| 26 | Concrete Drainage Gutter | 400 | LF | $40.24 | $16,096.00 |
| 27 | Concrete Retaining Wall and Steel Rails | 920 | LF | $1,200.00 | $1,104,000.00 |
| 28 | Entrance Gate | 1 | LS | $15,270.00 | $15,270.00 |
| 29 | Exit Gate | 1 | LS | $3,870.00 | $3,870.00 |
| 30 | 6' Chain Link Fence | 1,700 | LF | $32.52 | $55,284.00 |
| 31 | Pavement Markings & Striping | 1 | LS | $3,000.00 | $3,000.00 |
| 32 | Schedule 80 Waterline | 1,100 | LF | $63.60 | $69,960.00 |
| 33 | SDR 35 Sewerline | 110 | LF | $63.60 | $6,996.00 |
| 34 | Traffic Signage | 33 | EA | $720.00 | $23,760.00 |
| 35 | 40'x60' Metal Building | 1 | LS | $850,000.00 | $850,000.00 |
| 36 | Electrical Site Work | 1 | LS | $163,450.00 | $163,450.00 |
| 37 | Septic Tank | 1 | LS | $96,608.40 | $96,608.40 |
| 38 | Landscape and Irrigation | 1 | LS | $53,460.00 | $53,460.00 |
| 39 | Entrance Road* | 58,000 | SF* | $7.46 | $432,680.00 |
| | **SUBTOTAL** | | | | **$3,395,418.40** |
| | | | | | |
| | **TOTAL (West Site + North Site)** | | | | **$6,422,091.20** |

**Parkhill**

August 23, 2023

Ms. Erika Munoz Martinez, CPM
Purchasing Manager
City of Midland
PO Box 1152
Midland, TX 79702

Re: 6119.21 City of Midland West and North Citizens' Collection Stations
Recommendation for Award

Dear Ms. Martinez:

We reviewed the one Proposal for the noted Project received August 16, 2023, and determined that it was submitted in accordance with guidelines established by the Proposal Documents and those procedures adopted by the City of Midland. While compiling the detailed proposal tabulation, it was found that there were mathematical errors in the totals.

We recommend the Construction Contract for the City of Midland West and North Citizens' Collection Station project be awarded to Onyx General Contractors, LLC per the unit price multiplied by quantity per the proposal tabulation. **Contract amounts for the West Site of $3,026,672.80 and for the North Site of $3,395,418.40, combined total of $ 6,422,091.20.**

For anything further, please contact me at 469.200.7373 if you have questions or wish to discuss this matter further.

Sincerely,

PARKHILL

By _____
Spenser Harvey, PE
Project Manager

SJH/pg
Enclosures

**Parkhill**

## City of Midland West and North Citizens' Collection Stations

## City of Midland, Texas

## August 16, 2023

## 2:00 PM Local Time

PROPOSAL BID

| Item No. | Description | Quantity | Unit | Onyx General Contractors, LLC 1010 S. FM 1788 Midland, Texas 79706 Unit Price | Amount |
|---|---|---|---|---|---|
| | **West Citizen Collection Station** | | | | |
| 1 | Mobilization (5% Maximum) | 1 | LS | $45,000.00 | $45,000.00 |
| 2 | Erosion Control | 1 | LS | $5,000.00 | $5,000.00 |
| 3 | Excavation | 6,800 | CY | $7.80 | $53,040.00 |
| 4 | Embankment (fill) | 12,800 | CY | $19.08 | $244,224.00 |
| 5 | Furnish and install 3-inch thick Type "B " HMAC, 9" base | 800 | SY | $68.28 | $54,624.00 |
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| 18 | Septic Tank | 1 | LS | $53,651.00 | $53,651.00 |
| 19 | Water Well | 1 | LS | $18,000.00 | $18,000.00 |
| | **SUBTOTAL** | | | | **$3,026,672.80** |
| | | | | | |
| | **North Citizen Collection Station** | | | | |
| 20 | Mobilization (5% Maximum) | 1 | LS | $45,000.00 | $45,000.00 |
| 21 | Erosion Control | 1 | LS | $5,000.00 | $5,000.00 |
| 22 | Excavation | 4,400 | CY | $7.80 | $34,320.00 |
| 23 | Embankment (fill) | 3,600 | CY | $11.10 | $39,960.00 |
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| 29 | Exit Gate | 1 | LS | $3,870.00 | $3,870.00 |
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| 38 | Landscape and Irrigation | 1 | LS | $53,460.00 | $53,460.00 |
| 39 | Entrance Road* | 58,000 | SF* | $7.46 | $432,680.00 |
| | **SUBTOTAL** | | | | **$3,395,418.40** |
| | | | | | |
| | **TOTAL (West Site + North Site)** | | | | **$6,422,091.20** |

Parkhill

PROJECT MANUAL

# CITY OF MIDLAND

## West and North Citizens' Collection Stations

## Midland, Texas

July | 2023

Parkhill Project # 01611921

| | | |
|---|---|---|
| PACKET | 7.11 | September 12, 2023 |
| PACKET | 11.13 | November 14, 2023 |

Parkhill

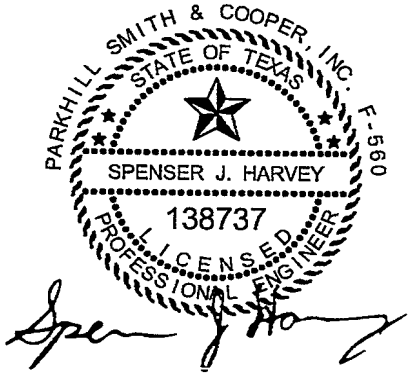
PROJECT MANUAL

# CITY OF MIDLAND

## West and North Citizens' Collection Stations

## Midland, Texas




07/14/2023

July | 2023

Parkhill Project # 01611921

| | | |
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## DESIGN PROFESSIONAL RESPONSIBILITY

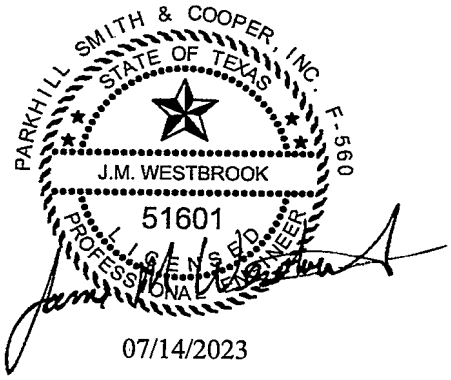
The Specification Sections authenticated by my seal and signature are limited to the following:

### DIVISION 03 - CONCRETE


| | | |
|---|---|---|
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| 03 30 00 | Cast-In-Place Concrete | 16 |


### DIVISION 05 – METAL


| | | |
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## DESIGN PROFESSIONAL RESPONSIBILITY

The Specification Sections authenticated by my seal and signature are limited to the following:

### DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES


| | | |
|---|---|---|
| 06 16 13 | Insulating Sheathing (Zip System R Sheathing) | 4 |
| 06 41 16 | Plastic-Laminate-Clad Architectural Cabinets | 4 |
| 06 64 00 | Plastic Paneling | 3 |


### DIVISION 07 – THERMAL AND MOISTURE PROTECTION


| | | |
|---|---|---|
| 07 21 00 | Thermal Insulation | 3 |
| 07 62 00 | Sheet Metal Flashing and Trim | 4 |


### DIVISION 08 – OPENINGS


| | | |
|---|---|---|
| 08 11 13 | Hollow Metal Doors and Frames | 6 |
| 08 33 23 | Overhead Coiling Doors | 3 |
| 08 41 13 | Aluminum-Framed Entrances and Storefronts | 8 |
| 08 71 00 | Door Hardware | |
| 08 80 00 | Glazing | 6 |


### DIVISION 09 – FINISHES


| | | |
|---|---|---|
| 09 22 16 | Non-Structural Metal Framing | 4 |
| 09 29 00 | Gypsum Board | 5 |
| 09 51 13 | Acoustical Panel Ceilings | 4 |
| 09 91 23 | Interior Painting | 4 |


### DIVISION 10 – SPECIALTIES


| | | |
|---|---|---|
| 10 28 13 | Toilet Accessories | 4 |
| 10 44 16 | Fire Extinguishers | 2 |


### DIVISION 11 – EQUIPMENT

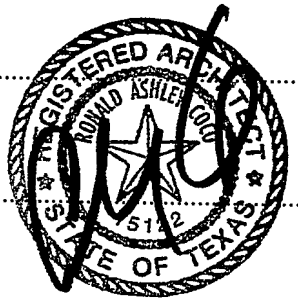

| | | |
|---|---|---|
| 11 40 00 | Foodservice Equipment | 2 |


### DIVISION 13 – SPECIAL CONSTRUCTION


| | | |
|---|---|---|
| 13 34 19 | Metal Building Systems | 9 |


### DIVISION 28 – ELECTRONIC SAFETY AND SECURITY


| | | |
|---|---|---|
| 28 15 00 | Integrated Access Control Hardware Devices | 11 |


07/14/2023

## DESIGN PROFESSIONAL RESPONSIBILITY

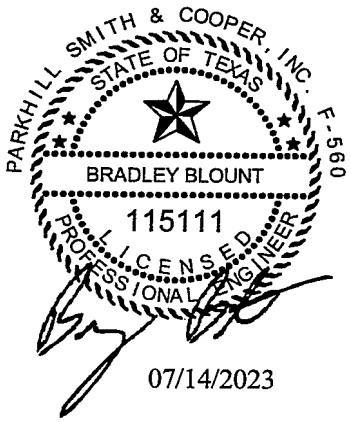
The Specification Sections authenticated by my seal and signature are limited to the following:

### DIVISION 22 – PLUMBING


| | | |
|---|---|---|
| 22 05 29 | Hangers and Supports | 5 |
| 22 11 00 | Facility Water Distribution | 9 |
| 22 13 00 | Facility Sanitary Sewerage | 6 |
| 22 33 00 | Electric Domestic Water Heaters | 3 |
| 22 40 00 | Plumbing Fixtures | 2 |


### DIVISION 23 – HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)


| | | |
|---|---|---|
| 23 05 00 | General Mechanical Requirements | 14 |
| 23 05 00.20 | Basic Mechanical Materials and Methods | 10 |
| 23 05 53 | Identification for HVAC Piping and Equipment | 3 |
| 23 07 05 | HVAC and Plumbing Insulation | 7 |
| 23 23 00 | Refrigerant Piping | 5 |
| 23 31 00 | HVAC Ducts and Casings | 5 |
| 23 33 00 | Air Duct Accessories | 5 |
| 23 34 00 | HVAC Fans | 5 |
| 23 37 00 | Air Inlet and Outlets | 2 |
| 23 81 26.20 | Split System Air-Conditioning Pumps | 5 |
| 23 82 39 | Unit Heaters | 3 |

## DESIGN PROFESSIONAL RESPONSIBILITY

The Specification Sections authenticated by my seal and signature are limited to the following:

### DIVISION 26 – ELECTRICAL

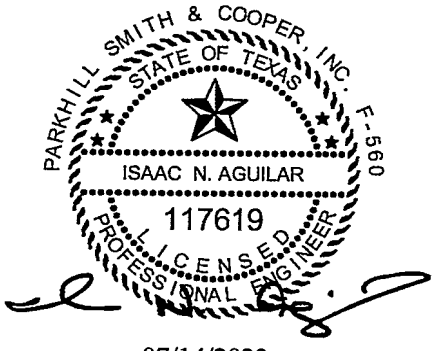

| | | |
|---|---|---|
| 26 05 00 | Basic Electrical Methods | 5 |
| 26 05 13 | Building Wire and Cable | 4 |
| 26 05 19 | Equipment Wiring Systems | 2 |
| 26 05 26 | Grounding and Bonding | 3 |
| 26 05 29 | Supporting Devices | 2 |
| 26 05 33 | Conduit | 5 |
| 26 05 33.16 | Boxes | 3 |
| 26 05 53 | Electrical Identification | 2 |
| 26 18 39 | Enclosed Motor Controllers | 3 |
| 26 24 16 | Switchboards and Panelboards | 3 |
| 26 27 26 | Wiring Devices | 3 |
| 26 28 16.16 | Enclosed Switches | 2 |
| 26 51 00 | Interior Lighting | 3 |


### DIVISION 27 – COMMUNICATIONS


| | | |
|---|---|---|
| 27 13 43 | Telephone Communications Cabling | 7 |


### DIVISION 28 – ELECTRONIC SAFETY AND SECURITY


| | | |
|---|---|---|
| 28 15 00 | Integrated Access Control Hardware Devices | 11 |


07/14/2023

# DOCUMENT 00 11 20 - REQUEST FOR PROPOSALS

1.1 OWNER

City of Midland
300 North Loraine Street
Midland, Texas 79701

1.2 PROJECT

West and North Citizens' Collection Stations

1.3 ENGINEER/ENGINEER

Parkhill
1700 W. Wall, Suite 100
Midland, Texas 79701
432.697.1447
Attn: R. Ashley Coco, AIA

1.4 DESCRIPTION

A. You are invited to submit a stipulated sum proposal on the attached forms for General Construction Work including mechanical, plumbing, electrical, Work and for furnishing of all labor, materials, services and equipment necessary for and incidental to the Work as called for on the Drawings and in the Project Manual. The construction is expected to commence by October 02, 2023.
B. Proposers may submit a proposal for the Work either individually or combined as indicated on the Proposal Form.
C. A contract may be awarded based on the proposal offering the best value to the Owner for the Project.

1.5 BASIS OF PROPOSALS

A. Owner will be utilizing the competitive sealed proposal procurement method as authorized by Texas Government Code, Title 10, Subtitle F., Chapter 2269, Subchapter D. The selection criteria used to evaluate each proposer's proposal is stipulated below in paragraph "D. Selection Criteria and Points."
B. The construction cost budget for this Project is approximately $6,000,000.00.
C. Proposals shall be made on a stipulated sum basis on the attached Proposal Forms.
D. Selection Criteria and Points.
   1. (0-40 points) Construction Price - Base Proposal.
   2. (0-20 points) Construction Time.
   3. (0-10 points) Resume of Project manager.
   4. (0-10 points) Resume of job superintendent.
   5. (0-10 points) Past and current experience on Projects of similar scope, size, complexity, and location. Include the following information: Owner, Project Name, Date Completed, Project Duration, Proposal Cost, Final Cost, Project Manager and Job Superintendent. If a current employee constructed the Project while working for a different employer clearly delineate that relationship.

6. (0-10 points) List of all litigation, claims, or lawsuits made against your company, an Owner or Engineer in which you were the contractor, including any Projects that your company failed to fulfill the terms of the contract with an Owner in the last five years. Provide status of each.
7. Letter of Intent to issue Performance and Payment Bonds from proposer's bonding company listing availability of current bonding capacity and amount of Work currently under bond.
8. Ranking and selection of the proposers will be based on the scoring and evaluation of the listed selection criteria determined to provide the best value to the Owner.

E. Additional Requirements
1. For the Project Manager and Job Superintendent, provide the following for each:
   a. Daily responsibilities for the Project.
   b. Formal education level.
   c. History of Work experience.
   d. Personal references including name, position, owner, current telephone number and email address.
2. In addition to requirements of the proposal documents, Owner may require additional information to establish responsibility of Proposer. Owner may further require identification of proposed subcontractors, suppliers and/or other persons and/or organizations proposed for portions of the Work and substantial data to determine their qualifications and experience. If requested, Proposer must submit all data to the Owner. Owner may also consider and use as part of the evaluation the operating costs, maintenance requirements, performance data and guarantees of major items of material and equipment proposed for incorporation in the Work when such data is required to be submitted in the proposal documents or prior to the award of the contract.
3. Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any proposal and to establish the responsibility, qualifications, and financial ability of Proposer, proposed subcontractors, suppliers and other persons and organizations to perform and furnish the Work in accordance with the proposal documents to Owner's satisfaction within the prescribed time.

## 1.6 SUBMISSION OF PROPOSALS

A. Address to: City of Midland
Attn: City Secretary's Office
300 North Loraine Street
Midland, TX 79701
or Mail to:

B. Location: City of Midland
Attn: City Secretary's Office
P.O. Box 1152
Midland, TX 79702

C. Date: August 9, 2023

D. Time: 2:00 p.m., local time.

E. Proposals received after the submission time on the due date will not be accepted and will be returned unopened to Proposer.


PACKET
7.22
September 12, 2023
PACKET
11.24
November 14, 2023

1.7 PROPOSAL DOCUMENTS

A. Proposal Documents may be examined at the Engineer's office and at the following plan rooms:
   1. Dodge Data & Analytics
      806.794.2722
      Kim.mccallon@construction.com
   2. AGC Plan Room
      4500 W Illinois, Suite 201
      Midland, Texas 79703
      432.520.2220
      midland@wtagc.org
   3. Odessa Plan Room
      2706 Henderson
      Odessa, Texas 79764
      432.337.0912
      Odessaplanroom@gmail.com
   4. AGC-Abilene
      3125 S. 27th
      Abilene, Texas 79605
      325.676.7447
      wtagc@sbcglobal.net

B. Proposers may secure copies of Proposal Documents as follows:
   1. By contacting Pam Gonzales at pgonzales@parkhill.com. Additional information can be found at https://parkhill.com/projects-for-bid.
   2. Download documents (.PDF file extension format) from Parkhill's Info Exchange web site after registering as a plan holder with issuing Parkhill office. There is no cost or deposit required for this option.

C. Only Proposers who obtain Proposal Documents through Parkhill will be registered as a document holder (plan holder) and will therefore automatically receive addenda if/when issued.

1.8 ADDENDA

A. Addenda will be issued to document holders by City of Midland.

1.9 PRE-PROPOSAL CONFERENCE

A. A pre-proposal conference will be held on Tuesday, July 25, 2023 at the Project site at 2:30 p.m. local time. Attendance by Proposers is not mandatory.

1.10 PROPOSAL SECURITY

A. Proposal security in the sum of 5 percent of the total proposal amount and in the form of a cashier's check, certified check, or Surety Proposal Bond, shall accompany all proposals as stipulated in the Instructions to Proposers.

1.11 OPENING OF PROPOSALS

A. Proposals will be publicly opened in the City Council Chambers immediately after closing of proposal time to identify the names of the proposer and their respective proposed contract

amount. Other contents of the proposals will be afforded security sufficient to preclude disclosure of contents prior to award or rejection action.

B. After opening the Proposals, the Owner will evaluate and rank each Proposal with respect to the published selection criteria described in section titled BASIS OF PROPOSALS. After opening and ranking, an award may be made on the basis of the initially submitted Proposal, without discussion, clarification or modification, or the Owner may discuss with the selected proposer, offers for cost adjustment and other elements of the Proposal. Other than the data read at the Proposal opening, the Owner shall not disclose any information derived from the Proposals submitted by competing firms in conducting such discussions.

C. If the Owner determines that it is unable to reach a satisfactory agreement with the first ranked proposer, the Owner will terminate discussions with that proposer. The Owner will then proceed with negotiations with each successive proposer as they appear in the order of ranking until an agreement is reached, or until the Owner has rejected all Proposals. After termination of discussions with any proposer, Owner will not resume discussions with that proposer.

D. The Owner reserves the right to accept or reject any or all alternates or to accept any combination of alternates considered advantageous to the Owner.

E. The award or rejection action regarding this Proposal is at the sole discretion of the Owner and the Owner makes no warranty regarding this Proposal that a contract will be awarded to any proposer.

F. The Owner agrees that if the Contract is awarded, it will be awarded to the proposer offering the best value to the Owner. The Owner is not bound to accept the lowest priced Proposal if that Proposal is judged not to be the best value for the Owner, as determined by the Owner.

1.12 FORMALITIES

A. The City of Midland reserves the right to waive irregularities and to reject all proposals.

1.13 APPLICABLE GOVERNING LAWS AND REGULATIONS

A. In accordance with the Instruction to Proposers, all proposers shall comply with State Labor Laws concerning wage rates Texas Family Code concerning affidavit of eligibility to submit proposals non-discrimination in employment and employment of historically underutilized businesses.

END OF SECTION

## DOCUMENT 00 21 16 - INSTRUCTIONS TO PROPOSERS

ARTICLE 1 – DEFINITIONS

1.1 Proposal Documents include the Proposal Requirements and the proposed Contract Documents. The Proposal Requirements consist of the Request for Proposals, Instructions to Proposers, the proposal form, and other sample proposal and contract forms. The proposed Contract Documents consist of the form of Agreement between the Owner and Contractor, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications and all Addenda issued prior to execution of the Contract.

1.2 Definitions set forth in the General Conditions of the Contract for Construction, or in other Contract Documents are applicable to the Proposal Documents.

1.3 Addenda are written, or graphic instruments issued by the Engineer prior to the execution of the Contract which modify or interpret the Proposal Documents by additions, deletions, clarifications or corrections.

1.4 A Proposal is a complete and properly signed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Proposal Documents.

1.5 The Base Proposal is the sum stated in the Proposal for which the Proposer offers to perform the Work described in the Proposal Documents as the base, to which Work may be added or from which Work may be deleted for sums stated in Alternate Proposals.

1.6 An Alternate Proposal (or Alternate) is an amount stated in the Proposal to be added to or deducted from the amount of the Base Proposal if the corresponding change in the Work, as described in the Proposal Documents, is accepted.

1.8 A Proposer is a person or entity who submits a Proposal.

1.9 A Sub-proposer is a person or entity who submits a proposal to a Proposer for materials, equipment or labor for a portion of the Work.

ARTICLE 2 - PROPOSER'S REPRESENTATIONS

2.1 The Proposer, by making a Proposal, represents that:

2.1.1 The Proposer has read and understands the Proposal Documents and the Proposal is made in accordance therewith.

2.1.2 The Proposer has read and understands the Proposal Documents or contract documents, to the extent that such documentation relates to the Work for which the Proposal is submitted.

2.1.3 The Proposer has visited the site, become familiar with local conditions under which the Work is to be performed and has correlated the Proposer's personal observations with the requirements of the proposed Contract Documents.

2.1.4 The Proposal is based upon the materials, equipment and systems required by the Proposal Documents without exception.

2.1.5 By submitting proposal, each proposer agrees to waive any claim it has or may have against the Owner, the Engineer, the Engineer and their respective employees and offices, arising out of or in connection with the administration, evaluation, or recommendation of any proposal; waiver of any

requirements under the Proposal Documents; or the Contract Documents; acceptance or rejection of any proposals; and award of the Contract.

ARTICLE 3 - PROPOSAL DOCUMENTS

3.1 COPIES

3.1.1 Proposal may obtain complete sets of the Proposal Documents from Parkhill as stated in Request for Proposals.

3.1.5 Proposal Documents will be issued directly to Subproposers or others unless specifically offered in Request for Proposals.

3.1.6 Proposers shall use complete sets of Proposal Documents in preparing Proposals; neither the Owner nor Engineer assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Proposal Documents.

3.1.7 In making copies of the Proposal Documents available on the above terms, the Owner and the Engineer do so only for the purpose of obtaining Proposals on the Work and do not confer a license or grant permission for any other use of the Proposal Documents.

3.2 INTERPRETATION OR CORRECTION OF PROPOSAL DOCUMENTS

3.2.1 The Proposer shall carefully study and compare the Proposal Documents with each other, and with other work being proposal concurrently or presently under construction to the extent that it relates to the Work for which the Proposal is submitted, shall examine the site and local conditions, and shall at once report to the Engineer errors, inconsistencies or ambiguities discovered.

3.2.2 Proposers and Sub-proposers requiring clarification or interpretation of the Proposal Documents shall make a written request which shall reach the Engineer at least seven days prior to the date for receipt of Proposals.

3.2.3 Interpretations, corrections and changes of the Proposal Documents will be made by Addendum. Interpretations, corrections and changes of the Proposal Documents made in another manner will not be binding, and Proposers shall not rely upon them.

3.3 SUBSTITUTIONS

3.3.1 The materials, products and equipment described in the Proposal Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution.

3.3.2 No substitution will be considered prior to receipt of Proposals unless written request for approval has been received by the Engineer at least 7 days prior to the date for receipt of Proposals. Such requests shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitution including Drawings, performance and test data, and other information necessary for an evaluation. An item by item (line by line) comparison of each item listed in the specification shall be compiled and submitted comparing specified material/product with proposed substitution. A statement setting forth changes in other material, equipment or other portions of the Work including changes in the work of other contracts that incorporation of the proposed substitution would require shall be included. The burden of proof of the merit of the proposed substitution is upon the proposer. Engineer's approval is for manufacturer only, and not specific material, system or equipment. Approved manufacturer's material, system or equipment is subject to additional and final review after award of contract and submitted for Engineer's approval during Construction Administration submittal/shop drawing review process. The Engineer's decision of approval or disapproval of a proposed substitution shall be final.

3.3.3 If the Engineer approves a proposed substitution prior to receipt of Proposals, such approval will be set forth in an Addendum. Proposers shall not rely upon approvals made in any other manner.

3.4 ADDENDA

3.4.1 Addenda will be issued via City of Midland.

3.4.2 Copies of Addenda will be made available for inspection wherever Proposal Documents are on file for that purpose.

3.4.3 No Addenda will be issued later than 2 days prior to the date for receipt of Proposals except an Addendum withdrawing the request for Proposals or one which includes postponement of the date for receipt of Proposals.

3.4.4 Only Proposers who obtain Proposal Documents through Parkhill will be registered as a document holder (plan holder) and will therefore automatically receive addenda if/when issued.

3.4.5 Each Proposer shall ascertain, prior to submitting a Proposal, that the Proposer has received all Addenda issued, and the Proposer shall acknowledge their receipt in the Proposal.

ARTICLE 4 - PROPOSAL PROCEDURES

4.1 FORM AND STYLE OF PROPOSALS

4.1.1 Proposals shall be submitted on forms identical to the form included with the Proposal Documents.

4.1.2 All blanks on the proposal form shall be filled in by typewriter or manually, in ink.

4.1.3 Where so indicated by the makeup of the proposal form, sums shall be expressed in both words and figures, and in case of discrepancy between the two, the amount written in words shall govern.

4.1.4 Interlineations, alterations and erasures must be initialed by the signer of the Proposal.

4.1.5 All requested Alternates shall be proposed. If no change in cost to the Base Proposal is required, mark "No Change."

4.1.5 Where two or more Proposals for designated portions of the Work have been requested, the Proposer may, without forfeiture of the proposal security, state the Proposer's refusal to accept award of less than the combination of Proposals stipulated by the Proposer. The Proposer shall make no additional stipulations on the proposal form nor qualify the Proposal in any other manner.

4.1.6 Each copy of the Proposal shall include the legal name of the Proposer and a statement that the Proposer is a sole proprietor, partnership, corporation or other legal entity. Each copy shall be signed by the person or persons legally authorized to bind the Proposer to a contract. A Proposal by a corporation shall further give the state of incorporation and have the corporate seal affixed. A Proposal submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Proposer.

4.1.8 All costs associated with the preparation, submission and delivery of Proposal is the sole responsibility of the Proposer.

4.2 PROPOSAL SECURITY

4.2.1 Each Proposal shall be accompanied by a proposal security as stipulated in the Request for Proposals, in the form and amount required, pledging that the Proposer will enter into a Contract with the Owner on the terms stated in the Proposal and will furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Proposer refuse to enter into such Contract or fail to furnish such bonds, the amount of the proposal security shall be forfeited to the Owner as liquidated damages, not as a penalty. The amount of the proposal security shall not be forfeited to the Owner in the event the Owner fails to comply with Subparagraph 6.2.1.

4.2.2 The surety bond shall be written on AIA Document A310, Proposal Bond, or a similar standard form of the Surety, and the attorney-in-fact who executes the bond on behalf of the Surety, shall affix to the bond a certified and current copy of the power of attorney.

4.2.3 The Owner will have the right to retain the proposal security of Proposers to whom an award is being considered until either (a) the Contract has been executed and bonds have been furnished, or (b) the specified time has elapsed so that Proposals may be withdrawn, or (c) all Proposals have been rejected.

4.3 SUBMISSION OF PROPOSALS

4.3.1 All copies of the Proposal, the proposal security and other documents required to be submitted with the Proposal shall be enclosed in a sealed opaque envelope. The envelope shall be addressed as indicated in the Request for Proposals and shall be identified with the Project name, the Proposer's name, and address and, if applicable, the designated portion of the Work for which the Proposal is submitted. If the Proposal is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED PROPOSAL ENCLOSED" on the face thereof.

4.3.2 Proposals shall be deposited at the designated location prior to the time and date for receipt of Proposals. Proposals received after the time and date for receipt of Proposals will be returned unopened.

4.3.3 The Proposer shall assume full responsibility for timely delivery at the location designated for receipt of Proposals.

4.3.4 Oral, telephonic or telegraphic Proposals are invalid and will not receive consideration.

4.3.5 The Proposer shall be responsible for all costs associated with preparing the Proposal Document response. The Owner and Engineer shall not incur any costs associated with the production and printing of the Proposal Document and post proposal information.

4.3.6 The Proposer shall prepare 6hard copies and 1 copy in pdf. on a USB flash drive of his proposal information which will be sealed in an opaque envelope.

4.4 MODIFICATION OR WITHDRAWAL OF PROPOSAL

4.4.1 A Proposal may not be modified, withdrawn, or canceled by the Proposer during the stipulated time period following the time and date designated for the receipt of Proposals, and each Proposer so agrees in submitting a Proposal.

4.4.2 Prior to the time and date designated for receipt of Proposals, a Proposal submitted may be modified or withdrawn by notice to the party receiving Proposals at the place designated for receipt of Proposals. Such notice shall be in writing over the signature of the Proposer or by telegram; if by telegram, written confirmation over the signature of the Proposer shall be mailed and postmarked on or before the date and time set for receipt of Proposals. A change shall be so worded as not to reveal the amount of the original Proposal.

4.4.3 Withdrawn Proposals may be resubmitted up to the date and time designated for the receipt of Proposals provided that they are then fully in conformance with these Instructions to Proposers.

ARTICLE 5 - CONSIDERATION OF PROPOSALS

5.1 OPENING OF PROPOSALS

5.1.1 As stated in the Request for Proposals, the properly identified Proposals, received on time, will be opened publicly and will be read aloud. An abstract of the same information may, at the discretion of the Owner, be made available to the Proposers within a reasonable time.

5.2 REJECTION OF PROPOSALS

5.2.1 The Owner shall have the right to reject any, or all Proposals, reject a Proposal not accompanied by a required proposal security, or by other data required by the Proposal Documents, or reject a Proposal which is in any way incomplete or irregular.

5.3 ACCEPTANCE OF PROPOSAL (AWARD)

5.3.1 It is the intent of the Owner to award a Contract to the lowest responsible Proposer provided the Proposal has been submitted in accordance with the requirements of the Proposal Documents and does not exceed the funds available. The Owner shall have the right to waive informalities or irregularities in a Proposal received and to accept the Proposal which, in the Owner's judgment, is in the Owner's own best interests. The issuance of this request for proposals does not obligate the Owner to enter into a contract.

5.3.2 The Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Proposal Documents, and to determine the low Proposer on the basis of the sum of the Base Proposal and Alternates accepted.

5.3.3 Each proposer agrees to waive any claim it has or may have against the Owner, the Engineer, and their respective employees, arising out of or in connection with the administration, evaluation, or recommendation of any proposal.

ARTICLE 6 - POST-PROPOSAL INFORMATION

6.1 CONTRACTOR'S QUALIFICATION STATEMENT

6.1.1 Proposers to whom award of a Contract is under consideration shall submit to the Engineer, upon request, a properly executed AIA Document A305-2020, Contractor's Qualification Statement, Exhibit A, Exhibit B (except for paragraph B.1) and Exhibit C (except for paragraph C.2). Exhibits D and E are not required.

6.2 OWNER'S FINANCIAL CAPABILITY

6.2.1 The Owner shall, at the request of the Proposer to whom an award of a Contract is under consideration and no later than seven days prior to the expiration of the time for withdrawal of Proposals, furnish to the Proposer reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. Unless such reasonable evidence is furnished, the Proposer will not be required to execute the Agreement between the Owner and Contractor.

6.3 SUBMITTALS

6.3.1 The Proposer shall, as soon as practicable, after notification of selection for the award of a Contract, furnish to the Owner through the Engineer in writing:

6.3.1.1 a designation of the Work to be performed with the Proposer's own forces:

6.3.1.2 names of the manufacturers, products and the suppliers of principal items or systems of materials and equipment proposed for the Work; and

6.3.1.3 names of subcontractors, persons, or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work.

6.3.2 The Proposer will be required to establish, to the satisfaction of the Engineer and Owner, the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Proposal Documents.

6.3.3 Prior to the award of the Contract, the Engineer will notify the Proposer in writing if either the Owner or Engineer, after due investigation, has reasonable objection to a person or entity proposed by the Proposer. If the Owner or Engineer has reasonable objection to a proposed person or entity, the Proposer may, at the Proposer's option, (1) withdraw the Proposal, or (2) submit an acceptable substitute person or entity, with an adjustment in the Base Proposal or Alternate Proposal to cover the difference in cost occasioned by such substitution. The Owner may, accept the adjusted proposal price or disqualify, the Proposer. In the event of either withdrawal or disqualification, proposal security will not be forfeited.

6.3.4 Persons and entities proposed by the Proposer and to whom the Owner and Engineer have made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner and Engineer.

ARTICLE 7 - PERFORMANCE BOND AND PAYMENT BOND

7.1 BOND REQUIREMENTS

7.1.1 The Proposer shall furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder.

7.1.2 The cost shall be included in the Proposal.

7.2 TIME OF DELIVERY AND FORM OF BONDS

7.2.1 The Proposer shall deliver the required bonds to the Owner prior to the execution of the Contract.

7.2.2 The bonds shall be written on AIA Document A312, Performance Bond and Payment Bond or the Bonding Company's standard bond forms. Both bonds shall be written in the amount of the Contract Sum.

7.2.3 The bonds shall be dated on or after the date of the Contract.

7.2.4 The Proposer shall require the attorney-in-fact who executes the required bonds on behalf of the surety, to affix thereto a certified and current copy of the power of attorney.

ARTICLE 8 - INSURANCE

8.1 INSURANCE REQUIREMENTS

8.1.1 The Proposer shall furnish insurance in the types and amount of coverage required, and shall be secured from sources as defined in the Owner/Contractor Agreement.

8.1.2 The cost shall be included in the Proposal.

8.2 TIME OF DELIVERY AND FORM OF INSURANCE

8.2.1 The Proposer shall deliver the required certificates of insurance coverage to the Owner upon its execution of the Contract.

8.2.2 The insurance certificate shall be written on a form acceptable to the Owner. Insurance shall be written in the amount required by the Contract.

8.2.3 The insurance certificates shall be dated on or before the date of the Contract.

ARTICLE 9 - FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

9.1 FORM TO BE USED

9.1.1 The Agreement for the Work will be written on Owner provided document.

ARTICLE 10 - APPLICABLE GOVERNING LAWS AND REGULATIONS

10.1 WAGE RATES

10.1.1 All Contractors must comply with State Labor Laws as required by current amended provisions of Section 2 of Article 5159a, Texas Civil Statutes. Contractor is required to pay not less than the specified minimum wage rates of the various applicable classes of labor.

10.1.2 The Contractor shall forfeit as a penalty to the State, sixty dollars ($60.00) for each laborer, workman or mechanic employed for each calendar day or portion thereof, if such laborer, workman or mechanic is paid less than the said stipulated rates for any work done under said contract, by Contractor or by their subcontractor.

10.4 NON-DISCRIMINATION

10.4.2 During the proposal and performance of this Contract, the Contractor agrees as follows:

10.4.2.1 The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, or national origin. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, sex, religion, age, or national origin. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees or applicants for employment, notices to be provided setting forth the provisions of this non-discrimination article.

10.5 HISTORICALLY UNDERUTILIZED BUSINESS

10.5.2 The Contractor shall include a "Historically Underutilized Business Policy Statement" in all subcontracts pertaining to the Work as follows:

City of Midland is committed to make efforts to assist Historically Underutilized Businesses (HUBs) to receive at least thirty percent (30%) of the total value of all contract awards issued by the state. Therefore, HUBs qualified to do so are encouraged to propose; and all business that propose are encouraged to give particular attention in preparing their proposals to include HUBs as subcontractors and material suppliers at any tier for a total value of at least 30% of the amount of their proposal. **Each proposer is required to state in its proposal (HUB Proposal Supplement) the percentage of the proposal amount represented by women owned HUBs, the percentage represented by minority-owned HUBs, and the combined total of each.**

HUB Subcontracting Program Reporting Policy, Responsibilities at the time of award:

The State of Texas operates under the basic principles of free and vigorous competition. In accordance with House Bill 2626, 73rd Legislature, all state agencies are to give a good faith effort to award at least thirty percent (30%) of the total value of all contracts to certified HUBs. Achievement of the goal may be reached by the state contracting directly with HUB vendors or by the state's general contractors establishing contracts with HUB vendors as subcontractors, suppliers or material providers.

All contractors are required to prepare the reporting forms within the designated time period stated on each form to assist City of Midland's efforts to document HUB vendor usage. Contractors that have demonstrated past HUB participation are still expected to provide documentation at the prescribed times.

General Services Commission (GSC) will assist contractors in identifying HUB businesses, call 512.463.3612. If contractors have difficulty in obtaining HUB vendors or meeting the goal targeted, contractor will be required to provide City of Midland with information under the good faith effort criteria listed below:

Delivery of a written notice to all HUB Subcontractors or Suppliers identified on the GSC HUB Certification Directory, contractor group listings, State Agency listings, other government agencies listings, and to any local HUB who requested information on the job. The notice will contain (1) adequate information about the plans, specifications, and requirements of the Contract and Subcontract work, and (2) a contact person within the Contractor's office to answer questions.

Provide documentation on the type of solicitations made for HUB participation, include records, and submit evidence of correspondence and responses from HUBs. In accordance with normal industry practices, divide contract into small, economically feasible segments which could be performed by HUBs, include dollar amount offered to HUB.

Evidence of the steps taken to assist in financing, bonding, and technical assistance services for HUBs where HUBs are otherwise qualified and information as to the Contractors bonding requirements, the procedure for obtaining any needed bond, and the telephone number of one or more acceptable surety companies contacted. Provide an explanation for rejection to any HUB whose proposal is rejected, unless another HUB is accepted for the same work, as follows: (1) where price competitiveness is not the reason, a written rejection notice will include the reason for rejection, and (2) where price competitiveness is the reason, a meeting will be held, if requested, with the price-rejected HUB to discuss the rejection.

10.5.3 City of Midland will review and evaluate the above documentation on the basis of demonstrated "good faith effort." Additional positive efforts or technical assistance may be provided and/or suggested by GSC. GSC will assist contractors in affirmative action plans to achieve the state's HUB contracting goal, call .512.463.3612.

10.5.4 An Historically Underutilized Business is defined by stature as (a) a corporation formed for profit in which at least 51 percent of the equity is owned by one or more women or Black, Hispanic, Asian Pacific, or Indian Americans, (b) a sole proprietorship 100 percent owned, operated, and controlled by such person(s), (c) a partnership in which such person(s) own at least 51 percent of its assets and interest and have proportionate control of partnership affairs, (d) a joint venture of HUBs, or (e) a supplier contract between an HUB and a prime contractor under which the HUB manufactures, distributes, or warehouses and ships the supplies.

10.5.5 **The proposer shall indicate in the appropriate space on the HUB Proposal Supplement whether or not the proposer meets the definition of an Historically Underutilized Business.**

10.5.6 **The proposer shall also indicate in the appropriate space on the HUB Proposal Supplement whether or not the proposer meets the following definition of a small business:**

A Small Business is a corporation, partnership, sole proprietorship or other legal entity formed for the purpose of making a profit which is independently owned and operated and has either fewer than 100 employees or less than $1,000,000 in gross annual receipts during the past calendar or fiscal year.

END OF SECTION

# DOCUMENT 00 26 00 - PROCUREMENT SUBSTITUTION PROCEDURES

## 1.1 DEFINITIONS

A. Procurement Substitution Requests: Requests for changes in products, materials, equipment, and methods of construction from those indicated in the Procurement and Contracting Documents, submitted prior to receipt of Proposals.

B. Substitution Requests: Requests for changes in products, materials, equipment, and methods of construction from those indicated in the Contract Documents, submitted following Contract award. See Section 01 25 00 "Substitution Procedures" for conditions under which substitution requests will be considered following Contract award.

## 1.2 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

## 1.3 PROCUREMENT SUBSTITUTIONS

A. Procurement Substitutions, General: By submitting a Proposal, the Proposer represents that its Proposal is based on materials and equipment described in the Procurement and Contracting Documents, including Addenda. Proposers are encouraged to request approval of qualifying substitute materials and equipment when the Specifications Sections list materials and equipment by product or manufacturer name.

B. Procurement Substitution Requests will be received and considered by Owner when the following conditions are satisfied, as determined by Architect; otherwise requests will be returned without action:
   1. Extensive revisions to the Contract Documents are not required.
   2. Proposed changes are in keeping with the general intent of the Contract Documents, including the level of quality of the Work represented by the requirements therein.
   3. The request is fully documented and properly submitted.

## 1.4 SUBMITTALS

A. Procurement Substitution Request: Submit to Architect. Procurement Substitution Request must be made in writing in compliance with the following requirements:
   1. Requests for substitution of materials and equipment will be considered if received no later than 7 days prior to date of Proposal opening.
   2. Submittal Format: Submit 3 copies or 1 PDF copy of each written Procurement Substitution Request, using CSI Substitution Request Form 1.5C. All copies must be legible.
   3. Provide product data in a side-by-side, line-by-line review. Substitution Request Form 1.5C received without product data will be returned unanswered. Additionally, provide appropriate drawings, samples, tests, and reports as necessary to support and clarify product data. Attach all as backup data to CSI Substitution Request Form 1.5C.

B. Architect's Action:
   1. Architect may request additional information or documentation necessary for evaluation of the Procurement Substitution Request. Architect will notify all Proposers of acceptance of the proposed substitute by means of an Addendum to the Procurement and Contracting Documents.

C. Architect's approval of a substitute during the Proposal process does not relieve Contractor of the responsibility to submit required Shop Drawings and to comply with all other requirements of the Contract Documents.

END OF DOCUMENT



PACKET 7.35 September 12, 2023
PACKET 11.37 November 14, 2023

# SECTION 00 31 00 – AVAILABLE PROJECT INFORMATION

## PART 1 - GENERAL

1.1 SUMMARY

A. Related Sections:
1. Division 01 Specification Sections apply to Work of this Section.

1.2 INFORMATION

A. Property Survey:
1. A survey of the property was authorized by the Owner, and the survey was made by:

Parkhill
1700 W Wall Street
Midland, TX 79701
(432) 697-1447

2. Site layout, Drawings and boundary traverse and closure information included in the Drawings.
3. Property survey and Site improvement layout is available for Contractor's information.

1.3 RESPONSIBILITY

A. Proposers are expected to examine the Site survey information then determine for themselves the validity of the information contained there-in as it relates to this Project.
B. Engineer and Owner do not guarantee continuity of conditions indicated at boring locations and assume no responsibility for variations of subsoil quality or conditions.
C. Engineer and Owner assume no responsibility for variations of Site survey information.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION (Not Used)

END OF SECTION

# SECTION 00 31 32 - GEOTECHNICAL DATA

## PART 1 - GENERAL

1.1 SUMMARY

A. Related Requirements:
1. Division 01 Specification Sections apply to Work of this Section.

1.2 INFORMATION

A. Geotechnical Data:
1. An investigation of subsurface soil conditions at the construction site was authorized by Owner, and investigations at the West CCS Site were made by:

Beyond Engineering and Testing
011-B South County Road 1260
Midland, TX 79706
432.561.5780

Investigations at the North CCS Site were made by:

Terracon
10400 State Hwy 191
Miland, TX 79707
432.684.9600

2. The two reports, in their entirety, are bound at the end of this Section.

1.3 GEOTECHNICAL DATA

A. This Document with its referenced attachments is part of the Procurement and Contracting Requirements for Project. They provide Owner's information for Proposers' convenience and are intended to supplement rather than serve in lieu of [Proposers' own investigations. This Document and its attachments are not part of the Contract Documents.

B. Because subsurface conditions indicated by the soil borings are a sampling in relation to the entire construction area, and for other reasons, the Owner, Architect, Engineer, the Architect's or Engineer's consultants, and the firm reporting the subsurface conditions do not warranty the conditions below the depths of the borings or that the strata logged from the borings are necessarily typical of the entire site. Any party using the information described in the soil borings and geotechnical report shall accept full responsibility for its use.
1. The opinions expressed in this report are those of a geotechnical engineer and represent interpretations of subsoil conditions, tests, and results of analyses conducted by a geotechnical engineer. Owner is not responsible for interpretations or conclusions drawn from the data.
2. Any party using information described in the geotechnical report shall make additional test borings and conduct other exploratory operations that they may require to determine the character of subsurface materials that may be encountered.

3. Proposers are expected to examine the geotechnical data reports and then determine for themselves the validity of the information contained there-in as it relates to this Project.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

BEYOND
Engineering & Testing

www.BeyondET.com

3011-B South County Road 1260
Midland, TX 79706
432.561.5780

January 5, 2022
*Via email: jahrlett@midlandtexas.gov*

Attn: Mr. Jeffrey Ahrlett
Director of Solid Waste
City of Midland
300 N Loraine
Midland TX 79701

**Reference:** **Geotechnical Report**
**Citizen's Collection Station**
**6400 West Highway 80**
**Midland, Texas**
BEYOND Project No. GT2111061

Dear Mr. Ahrlett:

Beyond Engineering and Testing, LLC (BEYOND) is pleased to present our geotechnical engineering study for the proposed Citizen's Collection Center project in Midland, Texas. City of Midland (Client) commissioned this geotechnical engineering study to explore and evaluate the subsurface conditions at the site, develop geotechnical design parameters, and provide related construction recommendations for the project. Our geotechnical report describes our field exploration and laboratory testing program, our engineering interpretation pertinent to the project, as well as earthwork guidelines for the project.

We appreciate the opportunity to serve you. We look forward to working with you on construction materials testing services during construction phase. Note that BEYOND is already under contract with Client for this project. As such, a simple change order is needed to approve testing services during construction phase. Please call us if you have any questions concerning this report or any of our other services.

Respectfully submitted,
**Beyond Engineering and Testing, LLC**

Appasaheb "Amar" Kadam
Project Manager, E.I.T.

# GEOTECHNICAL REPORT

**Citizen's Collection Station**
6400 WEST HIGHWAY 80
MIDLAND, TEXAS

*Prepared For:*

**City of Midland**
**300 N Loraine, Midland, Texas 79701**

*Prepared By:*

BEYOND Engineering & Testing

Beyond Engineering and Testing, LLC
3011-B South County Road 1260
Midland, Texas 79706

432.561.5780 | www.BEYONDET.com

January 5, 2022
BEYOND Project No. GT2111061

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PACKET 11.42 Nover

# Geotechnical Report

## Citizen's Collection Station

6400 WEST HIGHWAY 80
MIDLAND, TEXAS

This Report Prepared By:

**Beyond Engineering and Testing, LLC**
3011-B South County Road 1260
Midland, TX 79706

432.561.5780 | www.BeyondET.com

*Prepared by:*

Appasaheb "Amar" Kadam
Project Manager, E.I.T

STATE OF TEXAS
ALFRED H. WILLIAMS
127667
LICENSED
PROFESSIONAL ENGINEER

*01/05/2022*

*Reviewed by:*

Alfred Williams, P.E.
Geotech Department Manager

**FIRM REGISTRATION NO. F-19523 - TEXAS**

***January 5, 2022*** ***Project No. GT2111061***

**UNAUTHORIZED USE OR COPYING OF THIS DOCUMENT IS STRICTLY PROHIBITED BY ANYONE OTHER THAN THE CLIENT FOR THE SPECIFIC PROJECT.**

PACKET 7.41 September 12, 2023
PACKET 11.43 November 14, 2023

**Geotechnical Report**
**Citizen's Collection Station**
**Midland, Texas**

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## APPENDIX A


Figure 1: Project Site Location Map
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Xenco Analytical Report

**Geotechnical Report**
**Citizen's Collection Station**
**Midland, Texas**

## 1.0 INTRODUCTION

Beyond Engineering and Testing, LLC (BEYOND) is pleased to present our subsurface exploration and geotechnical engineering evaluation for the proposed Citizen's Collection Station project. The proposed project site will be situated near 6400 West Highway 80 in Midland, Texas at GPS coordinates (31.955276, -102.159771). The approximate project location is shown on Figure 1, Project Site Location Map, within Appendix A.

The purpose of this geotechnical investigation and report is to:

- Explore subsurface conditions;
- Conduct field and laboratory testing to characterize the engineering properties of subsurface materials;
- Provide geotechnical engineering parameters for the design and construction of foundation systems;
- Provide pavement recommendations, and;
- Provide earthwork requirements.

The recommendations contained in this report are based upon field and laboratory test results, engineering analyses, experience with similar subsurface conditions, and our project understanding.

## 2.0 PROPOSED CONSTRUCTION

BEYOND understands the proposed project will comprise of Citizen's Collection Station facility which consists of 40 feet by 60 feet metal building, concrete pavement, a built-up ramp and retaining walls for roll-off drops.

## 3.0 FIELD EXPLORATION

BEYOND prepared and executed a field exploration program for the proposed project on November 19, 2021. The approximate boring locations are shown on Figure 2, Borehole Locations Map, within Appendix A of this report. A summary of approximate geographic latitude and longitude coordinates and depth of each boring drilled as part of the subsurface exploration program is presented in Table 3.0.1.

*Table 3.0.1 – Summary of Boring Locations and Depths*

| Boring No. | Latitude (degrees) | Longitude (degrees) | Total Boring Depth (feet) |
|---|---|---|---|
| B-1 | 31.955617 | -102.157978 | 19 |
| B-2 | 31.955419 | -102.158930 | 19 |
| B-3 | 31.955276 | -102.159771 | 19 |

Notes: Latitude and longitude coordinates provided in Table 3.0.1 were obtained from a hand-held GPS device with accuracy of approximate 15 to 20 feet.

BEYOND utilized air rotary drilling method to advance the boreholes. We collected samples using Standard Penetration Testing (SPT) split spoon samplers. We collected all samples from the samplers in the field, performed visual soil classification, labeled the samples as to location and depth, and bagged soil samples to minimize moisture changes. We conducted the SPT tests in general accordance with ASTM D1586: Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils. SPT test results are shown on the attached Boring Logs under the "Field Data" column and are preceded by the letter "N". SPT testing was performed using automatic hammer.

BEYOND prepared field logs for each boring drilled. The field logs contain visual classifications of the materials encountered during drilling as well as interpolation of the subsurface conditions between samples. We also observed for groundwater level in the borehole while advancing the boreholes. These observations are discussed in subsequent sections of this report.

The project engineer reviewed the field logs, samples, and laboratory data to make appropriate modifications to the field logs. BEYOND classified soils in general accordance with the Unified Soil Classification System (USCS). The soil classification symbols on the boring logs are described in the *Boring Log Key* included in Appendix A. The final logs of boring include modifications based on our laboratory test results and observations performed on the soil samples collected in the field. The final logs of boring describe the materials encountered, strata thickness, the various depths at which the samples were obtained, as well as field test results.

## 4.0 SUBSURFACE CONDITIONS

### 4.1 Regional Geology

As per the geologic Atlas of Texas, Pecos sheet, the geology at the project site and in the vicinity consists of the following.

**Quaternary Period Units**

- **Playa Deposits** (Qp): Shallow, closed, depressions that have filled mainly with clay and silt, along with minor amounts of sand.
- **Windblown Cover Sand** (Qcs/Qbd): Eolian deposits comprised of fine- to medium-grained sand-sized quartz grains, silty in nature, with calcareous and caliche deposits being common. Windblown sediments can reach 10 feet in thickness.

Site vicinity geologic map is shown on Figure 3 within Appendix A of this report.

### 4.2 Subsurface Stratigraphy

As indicated on our logs of borings drilled as part of this study, native soils were encountered beneath approximately 2 inches of topsoil and extended to the bottom of the boring. The native soils generally encountered are as follows:

- Loose to very dense sand with varying amounts of clay, silt and gravel.

Bedrock was not encountered in any of the borings completed as part of this study.

The above descriptions are general and depth ranges are approximate because boundaries between different strata are seldom clear and abrupt in the field. In addition, the lines separating major strata types on the logs of borings do not necessarily represent distinct lines of demarcation of the various strata. Detailed logs of borings for locations drilled as part of this study, which present the stratum descriptions, types of sampling used, laboratory test data, and additional field data, are presented in Appendix A. The Boring Log Key, defining the terms and descriptive symbols used on each log of boring, is also presented in Appendix A.

### 4.3 Groundwater Conditions

BEYOND did not encountered groundwater during drilling operations.

Based on the Texas Water Development Board (TWDB) Groundwater Database of water wells within a 0.25-mile radius from the project site locations, groundwater levels at adjacent water wells were recorded at depths of 39 to 42 feet below ground surface. These measurements are from submitted driller's well reports from 2014.

It is imperative to note that the short-term groundwater level observations performed as part of this study are not an accurate evaluation of groundwater levels at the project site and should not be interpreted as a comprehensive groundwater study. The observations made during this investigation may also not represent conditions at the time of construction and it should be understood the presence of groundwater may have an effect on certain construction activities and long-term performance of foundations and pavements. Groundwater levels are highly dependent on climatic and hydrologic conditions before and after construction, and site development including irrigation demands, drainage and other factors. If a detailed groundwater study is desired, a groundwater hydrologist should be retained to perform these services.

## 5.0 LABORATORY TESTS

BEYOND performed various laboratory tests to determine the soil's physical properties. These tests allow us to classify soils and to assess soil performance under the project design conditions. Laboratory tests are presented in each respective *Log of Boring* and in the *Summary of Laboratory Tests* in Appendix A. The project geotechnical engineer assigned appropriate laboratory tests on selected soil samples. BEYOND performed the following laboratory methods for soil analyses:

- Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System): ASTM D2487;
- Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass: ASTM D2216;
- Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils: ASTM D4318;
- Standard Test Methods for Amount of Material in Soils Finer than No. 200 (75-µm) Sieve: ASTM D1140;
- Sulfate and Chlorides Content: EPA 300/300.1;

## 5.1 Geotechnical Laboratory Test Results

Moisture content tests were performed, in accordance with ASTM D2216, on selected soil samples. The test results are provided on Logs of Boring in Appendix A of the report as well as on the Summary of Laboratory Results in Appendix A of this report.

Percent finer than No. 200 (75-µm) sieve tests were performed, in accordance with ASTM D1140, on selected soil samples. The test results are provided on Logs of Boring in Appendix A of the report as well as on the Summary of Laboratory Results in Appendix A of this report.

Laboratory test results indicate that the native clay soils have liquid limit (LL) values range from non-plastic to 39% and plastic limit (PL) value ranging from non-plastic to 23%, with Plasticity Index (PI) values ranging from about non plastic to 23%. Based on FHWA-NHI-10-016 for the method of identifying potentially expansive soils as shown in Table 5.1.1, the soils at this proposed project site possess low swell potential.

***Table 5.1.1 – Method of Identifying Potentially Expansive Soils (from FHWA-NHI-10-016)***

| Liquid Limit (%) | Plasticity Index | Potential Swell (%) | Potential Swell Classification |
|---|---|---|---|
| < 50 | < 25 | < 0.5 | Low |
| 50 to 60 | 25 to 35 | 0.5 to 1.5 | Marginal |
| > 60 | > 35 | > 1.5 | High |

The Potential Vertical Rise (PVR) is the potential ability of a soil material to swell, at a given density, moisture and loading condition, when exposed to capillary or surface water. We estimate the PVR value for lightly loaded slabs-on-grade or shallow footings to be less than 1-inch, using the TxDOT method Tex-124-E.

A summary of laboratory testing results is presented in Appendix A of this report.

### 5.2 Soil Corrosiveness

BEYOND obtained the services of Xenco Laboratories to perform analytical tests to determine the content of soluble sulfate and chloride in the soils at or near foundation bearing depths. The results of soluble sulfate and chloride content are summarized in Table 5.2.1.

***Table 5.2.1 – Results of Soluble Sulfate and Chloride Content***

| Boring No. | Depth of Sample (feet) | Soluble Chlorides (mg/kg) | Soluble Sulfate (mg/kg) |
|---|---|---|---|
| B-1 | 0 | <4.95 | <4.95 |

These test results indicate non-corrosive chloride content and negligible sulfate contents. The Xenco test results are included within Appendix A.

## 6.0 FOUNDATION DESIGN AND GEOTECHNICAL RECOMMENDATIONS

BEYOND understands the proposed Citizen's Collection Station facility consists of a 40 foot by 60 foot metal building, concrete and asphalt pavement, a built-up ramp and retaining walls for roll-off drops.

Based on the site geotechnical conditions, shallow foundations may be used to support the proposed buildings. Earthwork requirements for the proposed buildings are provided under Section 7.

We recommend that BEYOND's geotechnical engineer or our qualified representative be retained to observe shallow foundation excavations in this area to assess the need for any over-excavation and re-compaction and/or replacement.

### 6.1 Shallow Foundations

We recommend that the spread footings at the site should have a minimum embedment of 2 feet below final site grade for confinement, and the strip footings should have a minimum embedment of 1.5 feet below final site grade. The footings should bear on soils placed in accordance with Section 7 of this report. We recommend a minimum width of 12 inches for strip footings and a minimum of 24 inches for spread footings.

For our engineering analyses, we utilized the strength parameters provided in Table 6.1.1. Site grading plans for the proposed project site were not available during preparation of this report. BEYOND assumes final grade of the drop area will be approximately 1 to 6 feet higher than existing site grade.

***Table 6.1.1 – Engineering Properties of Subsurface Materials for Shallow Foundation***

| Angle of Internal Friction, $\phi$' (degree) | Total Unit Weight, $\gamma$ (pcf) | Ultimate Coefficient of Friction, $\mu$ |
|---|---|---|
| 30 | 110 | 0.35 |

Table 6.1.2 provides the values for net allowable bearing pressures against general shear failure based on a factor of safety of 3 for continuous and footings that bear on soils placed in accordance with Section 7 of this report. We estimate total footing settlement should not exceed 1-inch based on the allowable bearing pressures provided in Table 6.1.2.

***Table 6.1.2 – Allowable Bearing Pressures for Shallow Foundations***

| Footing Type | Footing Width (feet) | Footing Depth (feet) | Allowable Bearing Pressure (psf) |
|---|---|---|---|
| Continuous Footing | 1.0 | 1.5 | 1,250 |
| Continuous Footing | 1.5 | 1.5 | 1,500 |
| Spread Footing | 2.0 | 2.0 | 2,500 |
| Spread Footing | 2.0 | 3.0 | 3,500 |

Proper drainage must be maintained during construction and throughout the life of the structures to provide for improved shallow foundation performance. Other design and construction recommendations as outlined in the ACI design manual should be followed.

## 6.2 Floating Floor Slab for Building

A floating slab-on-grade is structurally independent of the spread footings. This option is also viable for the proposed building. The slab-on-grade can be supported on properly prepared subgrade in accordance with Section 7.1 of this report. A properly prepared subgrade should provide a modulus of subgrade reaction, $K_1$, of about 90 psi/inch, where $K_1$ corresponds to modulus of subgrade reaction corresponds to a 1-ft x 1-ft plate.

For square footing on cohesionless soil subgrade, the subgrade modulus value may be modified for various foundation widths based upon the following equation:

$$K_s = K_1\left[\frac{B+1}{2B}\right]^2$$

Where:

$K_s$ = adjusted modulus of subgrade reaction based on actual footing width;
$K_1$ = modulus of subgrade reaction corresponds to a 1-ft x 1-ft plate;
B = footing width (in feet)

We recommend an optional crushed stone layer of four (4) inches in thickness immediately below the floor slab. The crushed stone should meet TxDOT Item 247, Grade 3. The crushed stone will provide increased support, assist in reducing differential floor settlements, and provide uniform friction across the bottom of the slab. Most importantly, the crushed stone allows truck traffic during construction without rutting. The design team may choose to avoid the crushed stone layer. With this option, we recommend using a pump to place concrete. Using a pump avoids truck traffic on the finished subgrade.

Based on our experience of similar projects, we provide the following guidelines for concrete floor slab design and construction. The concrete specifications should require a low water/cement ratio and the concrete should be placed with a relatively dry slump. Control joints should be constructed while the concrete is relatively green, before it shrinks. Spacing for control joints should be 15 to 20 feet to control shrinkage cracks.

In order to improve aesthetics by reducing shrinkage cracks and irregular surface textures, BEYOND also recommends the following: the ready-mix concrete should arrive at the target slump and the contractor should not be allowed to add water to the mixture. Water sprayed onto the slab during 'bull floating' must be minimal; otherwise, alligator cracking of the surface may develop. If vapor barriers are used, the designer should also consider adding a thin sand cushion on top of the vapor barrier. This bedding sand allows the concrete to cure evenly from top to bottom. Other design and construction recommendations as outlined in the ACI design manual should be followed.

### 6.3 Lateral Earth Pressures

Following are recommended equivalent fluid pressures for below-grade walls using native soils or imported materials as backfill. When backfilling adjacent to retaining walls, the contractor should be careful not to over-compact soils adjacent to the wall, thus inducing additional lateral stresses on the retaining walls. Proper drainage should be provided away from the walls during all phases of construction and post-construction grading. Below grade basement walls are considered as non-yielding walls due to restrained at the top to prevent sufficient movement to develop active condition. The at-rest lateral pressures are the appropriate earth pressures to use for design of basement walls. Active earth pressure may be for walls that exhibit a certain degree of horizontal movement, such as cantilevered retaining walls.

Positive drainage should be provided to prevent the buildup of hydrostatic water pressure on the walls. To prevent hydrostatic build-up, retaining walls should incorporate a wall drain for collection and removal of surface water behind the walls. A clean, granular, fee-draining materials with no more than 5% passing the No. 200 sieve is the preferred backfill for wall drains. Acceptable backfill would be crushed material with a gradation of in general conformance with ASTM C33, No. 57 or 67 aggregate. The high permeability of such material, combined with adequate drainage, such as weepholes at the bottom of the wall, prevents hydrostatic build-up. If no positive drainage is provided, hydrostatic water pressure should be considered in the design of the walls.

Backfill materials for the retaining wall should be placed and compacted to a minimum compaction of 95% of the maximum dry density as determined by ASTM D698 and moisture conditioned within +/- 2% of optimum moisture content. The loose thickness of each layer before compacting shall not exceed 8 inches. Close to retaining walls, smaller compactors should use to prevent excessive lateral pressures against the retaining walls from stress caused by heavy compactors.

*Table 6.3.1 – Equivalent Fluid Pressures for Lateral Earth Pressures*

| Soil Type | Lateral Earth Pressure Condition | Lateral Earth Pressure Coefficient | Equivalent Fluid Pressure (psf/ft) |
|---|---|---|---|
| Native or Imported Cohesionless Soils $\phi$'=31, $\gamma_t$=115 pcf | At-Rest Condition | $k_o$=0.48 | 56 |
| | Active Condition | $k_a$=0.32 | 37 |
| | Passive Condition | $k_p$=3.12 | 360 |

The values apply only to cases where the ground surface is level. BEYOND should be contacted to provide suitable values for cases where the ground surface is sloped. These earth pressure values do not include safety factors or hydrostatic pressure. Surcharge loads should also be considered.

### 6.4 Seismic Parameters

The following seismic parameters are based on the 2015 International Building Code (IBC) and a Site Class D for this project site. The Mapped Spectral Response Acceleration for the 1 second ($S_1$) and short periods ($S_S$) were computed using the U.S. Seismic Design Maps web-based application program developed by the Applied Technology Council (ATC). Table 6.4.1 summarizes recommended seismic parameters to be used in the design:

*Table 6.4.1 Recommended Seismic Parameters*

| Parameter | Calculated Value |
|---|---|
| $S_S$ – Mapped Spectral Response Acceleration at Short Period (0.2-Second) | 0.124 g |
| $S_1$ – Mapped Spectral Response Acceleration at 1-Second Period | 0.033 g |
| $F_a$ (Site Coefficient) – Site Class D | 1.6 |
| $F_v$ (Site Coefficient) – Site Class D | 2.4 |

Note: Seismic Parameters were obtained from https://hazards.atcouncil.org/#/

## 7.0 FOUNDATION CONSTRUCTION CRITERIA

In this section, we provide various specifications and construction recommendations to allow earthwork to meet the intent of the geotechnical parameters provided in Section 6. We recommend that BEYOND be retained to provide verification testing services during construction. This allows us to verify that construction of foundation items are in compliance with our recommendations.

### 7.1 Site Preparation

Prior to construction, the contractor should establish proper and positive drainage to maintain a relatively dry condition at the proposed construction site. This will be important if any work is attempted during prolonged rainfall periods. Water ponding in construction areas should be avoided.

Winter weather conditions can also impact the construction process. Newly placed fill should not be placed on frozen subgrade and frozen material should not be used for fill.

Site preparation should begin by removing surface debris, vegetation, organic topsoil, loose soil and major root systems, if any. Compact resulting subgrade and verify stability using a proof-roll test. Conduct a proof-roll tests using a loaded dump truck or loaded double-axle water truck with a minimum weight of 20 tons. Passing proof-roll tests must show less than ½-inch deflection and no area pumping. Any soft spots or areas that exhibit pumping should be excavated and re-compacted to a minimum compaction of 98% of the maximum dry density as determined by ASTM D698 and moisture conditioned within +/- 2% of optimum moisture content.

The base of each foundation excavation should be observed by the geotechnical engineer or a qualified representative prior to foundation installation.

### 7.2 Select Fill Below Foundation and Floor Slab

Select non-expansive fill material placed within foundation and floor slab areas should meet one of the following soil classifications: SC-SM, SM, SC, CL, GC or GW-GC. In addition, select fill shall possess a plasticity index, PI of less than 18 and shall not possess particle sizes greater than 3-inches. Native soils within the upper 5 feet below existing site grade may be used as select fill. Additional testing should be performed during construction to verify the suitability of native soils as select fill.

Select fill below the foundation should be placed in loose lifts not exceeding 8-inches and should be compacted to a minimum compaction of 98% of the maximum dry density as determined by ASTM D698 and moisture conditioned within +/- 2% of optimum moisture content for cohesive soils or moisture conditioned within +/- 3% of optimum moisture content for cohesionless soils. Compacted backfill density should be verified by nuclear density tests, with at least one test per 2,500 square feet for each lift under buildings and one test per 5,000 square feet in other areas.

### 7.3 Shallow Foundation Construction

The following construction criteria and general guidance should be observed during shallow foundation construction:

1. Remove loose soils from footing excavations. Do not allow loose, excavated soils from the footings to be spread out within the building pad. These loose soils will cause differential settlements.

2. Excavations for footings should be accomplished with a smooth-mouthed bucket. If a toothed bucket is used, excavation with this bucket should be terminated a few inches above final grade and the excavation completed with a smooth-mouthed bucket or by manual labor. Debris or loose material in the bottom of the excavation should be re-compacted or removed prior to placing concrete. This is especially important along footing excavations.

3. The foundation excavation should be sloped sufficiently to create internal sumps for runoff collection and removal. Foundation excavations subject to rainfall and possible deterioration from accumulated water should be protected using a protective "mud-slab" (concrete). If surface runoff water or groundwater seepage accumulates at the bottom of the foundation excavation, it should be collected and removed and not allowed to adversely affect the quality of the bearing surface.

4. The foundation excavations should be checked for size and cleaned of loose material and debris prior to the placement of reinforcing steel. Precautions should be taken during the placement of reinforcement and concrete to prevent the loose excavated material from falling into the excavation.

5. Prior to the placement of concrete, any water must be removed from the foundation excavation.

6. Prompt placement of concrete in the excavation as it is completed, cleaned, and observed is strongly recommended.

### 7.4 Open Excavations

Temporary construction slopes and/or permanent embankment slopes should be protected from surface runoff water. Site grading should be designed to allow drainage at planned areas where erosion protection is provided, instead of allowing surface water to flow down unprotected slopes. Surcharge loads, either static or dynamic, should not be applied to an excavation slope. Construction equipment should be prevented from traveling along or near the top of the excavation slope. Monitoring of temporary slopes, trenches, and dewatering during construction should be undertaken by the contractor to detect early warnings of movement within slopes, structures, pavements, etc.

In all cases of excavations in soils, sloped excavations and trench shields are required for excavations greater than four feet in depth. The contractor's "Competent Person" (as defined by OSHA) must inspect each trench to determine the type of bench or slope that is actually required. With all excavations, only a "competent person" shall determine whether sloped, benched, or trench shields can be used. OSHA and applicable state and local standards should be observed and followed. Site safety is the responsibility of the contractor.

### 7.5 Drainage

Proper drainage should be provided away from the foundation elements during all phases of construction and post-construction grading. Proper drainage is essential to the long-term stability of the structure. Ponding of water near the foundation elements from improper drainage should not be permitted. Downspouts should use splash blocks that divert water away from the foundation. Planters near buildings should be lined and should not allow saturation of soils near the foundation.

## 8.0 PAVEMENTS

The proposed pavement sections presented here are calculated based solely on engineering structural parameters. Construction cost is not included in this analysis. Daily traffic volume or 18-kips Equivalent Single-Axle Loads (ESALs) for the proposed pavement was not available during preparation of this report. We anticipate traffic will mainly consist of passenger cars, pick-up trucks and haul trucks to transport the trash receptacles. We understand the facility will utilize the pavement sections outlined in Table 8.1.1. Based on the proposed pavement sections and assumptions below we have calculated the estimated ESAL's that the pavement can support over a design life of 20 years.

### 8.1 Design Recommendations for Pavements

BEYOND calculated pavement section options in accordance with the *AASHTO Guide for Design of Pavement Structures 1993*. For pavement analysis we assumed the following parameters:

- Design life: 20 years;
- Reliability: 85% (Flexible) or 90% (Rigid);
- Overall Standard Deviation: 0.45 (Flexible) or 0.35 (Rigid);
- Initial Serviceability: 4.2 (Flexible) or 4.5 (Rigid);
- Terminal Serviceability: 2.0 (Flexible) or 2.5 (Rigid);
- Assumed CBR-value: 6.0
- Design Resilient Modulus (psi): 8,000
- Asphaltic Concrete: Layer structural coefficient of 0.44, and a drainage coefficient of 1.0; and
- Untreated Base Course: Layer structural coefficient of 0.14, and a drainage coefficient of 1.0.
- Concrete compressive strength: 3,500 psi

Table 8.1.1 presents our pavement sections based on our assumed design parameters.

***Table 8.1.1 Recommended Pavement Section***

| Option | Estimated ESAL's | Concrete Thickness (inches) | HMAC Thickness (inches) | Untreated Aggregate Base Course Thickness (inches) |
|---|---|---|---|---|
| Light Duty Asphalt | 25,000 | -- | 2.0 | 6.0 |
| Heavy Duty Asphalt | 275,000 | -- | 3.0 | 9.0 |
| Concrete Pavement | 900,000 | 8.0 | -- | 6.0 |

The concrete pavement should be designed by the Civil Engineer to have proper reinforcement. As a general guideline, a minimum of #3 reinforcing bars at 18 inches on-center-each-way (OCEW) is recommended for the proposed concrete pavement.

### 8.2 Material Specifications

The pavement should be specified, constructed, and tested to meet the following requirements:

1. *Natural Subgrade* – Remove all vegetation and construction debris. Scarify the resulting subgrade to at least 12 inches, moisture condition and compact to a minimum of 98% of the maximum density per ASTM D698 and moisture conditioned within +/- 2% of optimum moisture content for cohesive soils or moisture conditioned within +/- 3% of optimum moisture content for cohesionless soils. The compacted surface shall be proof-rolled using a loaded tandem-axle dump truck or water truck of 25 tons or heavier. Passing proof-roll tests must show less than 1-inch deflection and no area pumping. Soft spots or areas exhibiting pumping should be excavated and re-compacted. Use select fill placed in accordance with Section 7.3 to reach final target site grade.
2. *Crushed Limestone Base Material (Flexible Base)* - Crushed rock as per Texas Department of Transportation, Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges (2014), Item 247, **Grade 2** or better. The material should be compacted to a minimum of **95%** of the maximum density as per **ASTM D1557**.
3. *Portland Cement Concrete* - BEYOND recommends using a TxDOT **Class P** concrete mix design, or similar.
4. *HMAC* – **Type B** Hot Mix Asphaltic Concrete surface course. This material should meet TxDOT Item 340 specifications.
5. *Prime Coat* – Texas Department of Transportation Item 310.

## 9.0 LIMITATIONS

Recommendations contained in this report are based on our field observations and subsurface explorations, limited laboratory tests, and our present knowledge of the proposed construction. It is possible that soil conditions will vary between or beyond the points explored. If soil conditions are encountered that differ from those described herein, we should be notified immediately. If the scope of the proposed design or construction changes from that described in this report, our data should also be reviewed.

We prepared this report in substantial compliance with the generally accepted geotechnical engineering practice, as it exists in the area at the time of our study. No warranty is expressed or implied. The recommendations provided in this report are based on the assumption that BEYOND will conduct an adequate program of tests and observations during the construction phase in order to evaluate compliance with our recommendations.

This report may be used only by the client, their design team, and only for the purposes stated, within three years from its issuance. Land use, site conditions (both on site and off site) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use this Report shall notify BEYOND of such intended use. Based on the intended use of the report, BEYOND may require that additional work

be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release BEYOND from any liability resulting from the use of this report by any unauthorized party.

This is a geotechnical engineering report and is not intended to provide information about possible contaminated soils or the locations of any abandoned underground storage tanks. The owner should consult with an environmental specialist to determine whether this site is suitable from an environmental perspective.

Other standards or documents referenced in any given standard cited in this report, or otherwise relied upon by the authors of this report, are only mentioned in the given standard; they are not incorporated into it or "included by reference," as that latter term is used relative to contracts or other matters of law.

# APPENDIX A

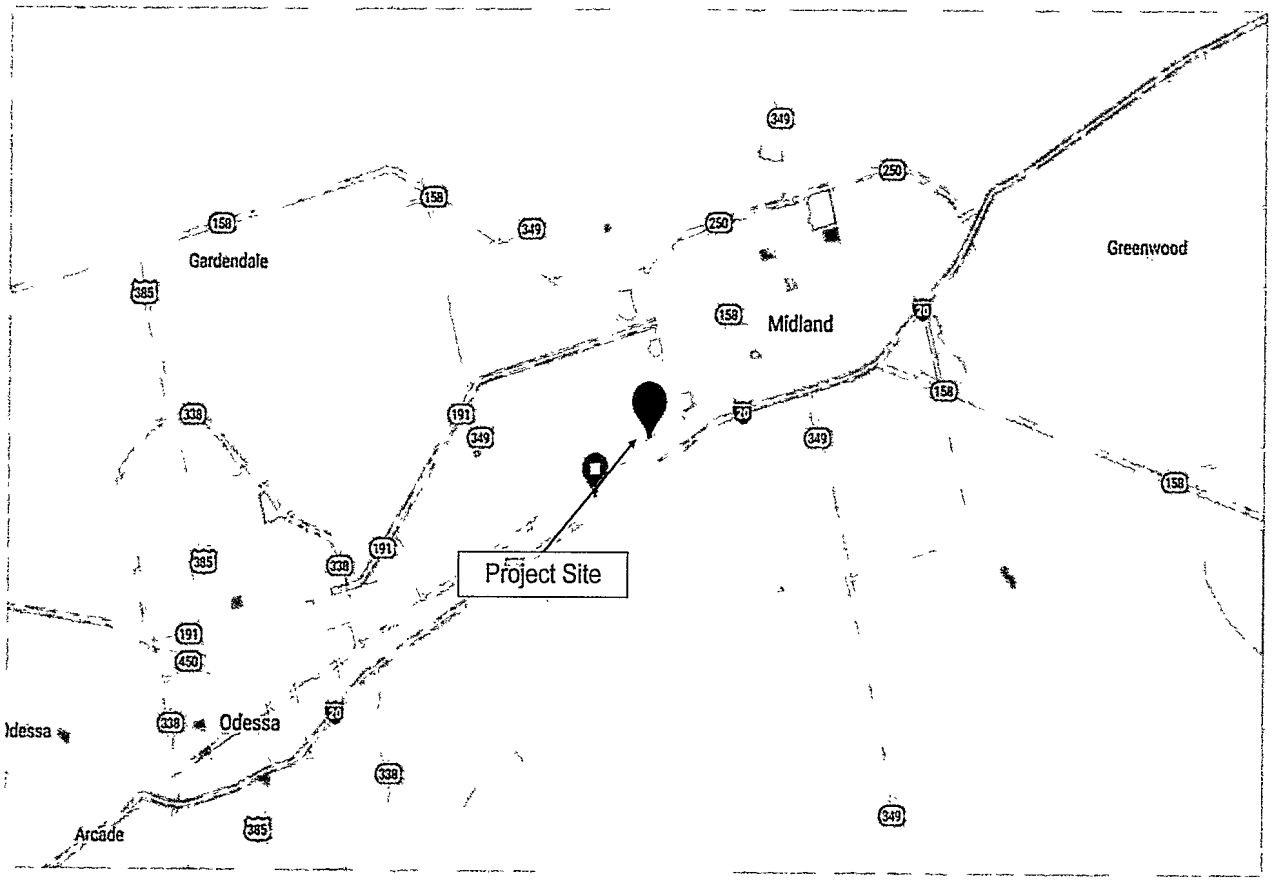



Figure 1- Project Site Location Map




Figure 2 - Borehole Locations Map

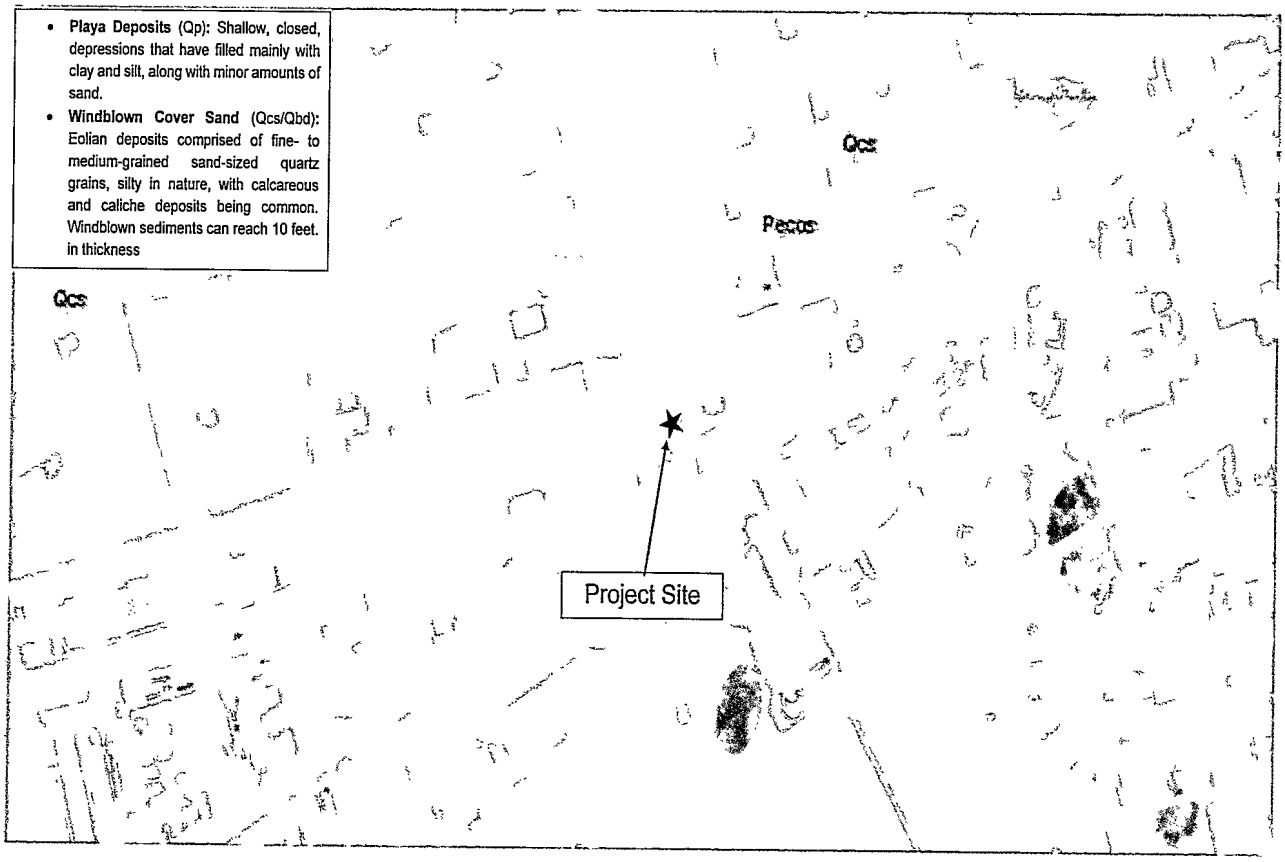
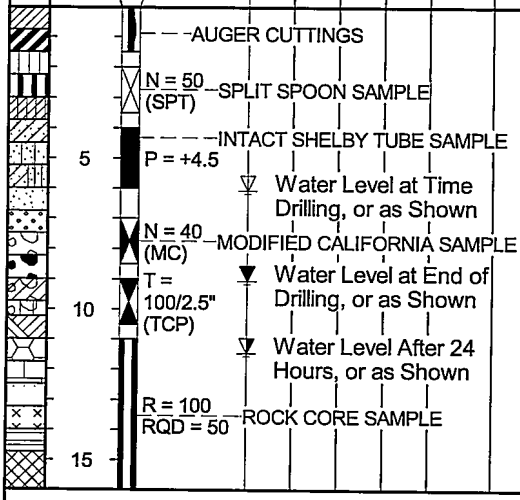



Figure 3 - Site Vicinity Geologic Map

# LOG OF BORING KEY




DRILLING METHOD(S):
Continuous Flight Auger/Hollow Stem Auger/Wash Rotary/NX Core

GROUNDWATER INFORMATION:
Groundwater was encountered at 8 ft. during drilling and measured at 9 ft. immediately after drilling

SURFACE ELEVATION: ft.

DESCRIPTION OF STRATUM

| Cohesive Soils - Clay and Silt | | | |
|---|---|---|---|
| Modified California (RS) SPT # blows/ft | Standard Split-spoon (SS) SPT # blows/ft | Pocket Penetrometer Unconfined Compressive Strength (tsf) | Consistency |
| < 3 | < 2 | < 0.25 | Very Soft |
| 3-6 | 2-4 | 0.25-0.5 | Soft |
| 7-12 | 5-8 | 0.5-1.0 | Medium Stiff |
| 13-25 | 9-15 | 1.0-2.0 | Stiff |
| 26-50 | 16-30 | 2.0-4.0 | Very Stiff |
| > 50 | > 30 | > 4.0 | Hard |

| Cohesionless Soils - Sand and Gravel | | |
|---|---|---|
| Modified California (RS) SPT # blows/ft | Standard Split-spoon (SS) SPT # blows/ft | Relative Density |
| 0-6 | < 4 | Very Loose |
| 7-18 | 4-10 | Loose |
| 19-58 | 11-30 | Medium Dense |
| 59-98 | 31-50 | Dense |
| > 98 | > 50 | Very Dense |

– TESTING SYMBOL DEFINITIONS –

N - STANDARD PENETRATION TEST RESISTANCE
P - POCKET PENETROMETER RESISTANCE
T - TXDOT CONE PENETRATION RESISTANCE
R - ROCK CORE RECOVERY
RQD - ROCK QUALITY DESIGNATION

## TYPICAL SOIL AND ROCK SYMBOLS (USCS CLASSIFICATION)

- Lean Clay (CL)
- Fat Clay (CH)
- Silt (ML)
- Elastic Silt (MH)
- Silty Clay (CL-ML)
- Clayey Sand (SC)
- Silty Sand (SM)
- Silty, Clayey Sand (SC-SM)
- Poorly-Graded Sand (SP)
- Well-Graded Sand (SW)
- Poorly-Graded Gravel (GP)
- Well-Graded Gravel (GW)
- Clayey Gravel (GC)
- Silty Gravel (GM)
- Bedrock
- Basalt
- Limestone
- Sandstone
- Siltstone
- Shale
- Fill Material

## DEGREE OF WEATHERING

1) Unweathered: No evidence of any chemical or mechanical alteration.
2) Slightly weathered: Slight discoloration on surface, slight alteration along discontinuities, less that 10% of the rock volume altered.
3) Moderately weathered: Discoloring evident, surface pitted and altered with alteration penetrating well below rock surfaces, weathering "halos" evident, 10 to 50% of the rock volume altered.
4) Highly weathered: Entire mass discolored, alteration pervading nearly all of the rock with some pockets of slightly weathered rock noticeable, some minerals leached away.
5) Decomposed: Rock reduced to a soil with relicit rock texture, generally molded and crumbled by hand.

## SOIL STRUCTURE

Calcareous..... Containing calcium carbonate
Slickensided..... The presence of planes of weakness having a slick and glossy appearance
Interbedded..... Alternating layers of varying material

# LOG OF BORING B-1



Beyond Engineering and Testing, LLC
3011-B South County Road 1260
Midland, Texas 79706
Telephone: 432.561.5780
www.BeyondET.com

CLIENT: City of Midland
PROJECT: Citizen's Collection Station
LOCATION: Midland, Texas
NUMBER: GT2111061
DATE(S) DRILLED: 11/19/21

DRILLING METHOD(S):
Air Rotary

GROUNDWATER INFORMATION:
Groundwater not encountered during or immediately after drilling

SURFACE ELEVATION:

| SOIL SYMBOL | DEPTH (FT) | SAMPLES | N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: % | MOISTURE CONTENT (%) | ATTERBERG LIMITS: LIQUID LIMIT LL | ATTERBERG LIMITS: PLASTIC LIMIT PL | ATTERBERG LIMITS: PLASTICITY INDEX PI | DRY DENSITY POUNDS/CU.FT | COMPRESSIVE STRENGTH (TONS/SQ. FT) | STRAIN AT FAILURE (%) | CONFINING PRESSURE (POUNDS/SQ IN) | MINUS NO. 200 SIEVE (%) | DESCRIPTION OF STRATUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | Topsoil 1.5 inches |
| | | | N = 16 | 1.4 | | | | | | | | | SILTY SAND (SM), brown, medium dense to very dense, dry, fine to medium grained |
| | | | N = 26 | 1.5 | NP | NP | NP | | | | | 17.1 | |
| | 5 | | N = 38 | | | | | | | | | | |
| | | | N = 50/1.5" | | | | | | | | | | Grading trace Gravel, light brown |
| | 10 | | N = 25 | 6.8 | 39 | 23 | 16 | | | | | 23.2 | CLAYEY SAND (SC), with gravel, light brown, medium dense, dry, fine to medium grained |
| | 15 | | N = 50/6" | | | | | | | | | | SILTY SAND (SM), brown, very dense, dry, fine to medium grained |
| | | | N = 50/5" | | | | | | | | | | |
| | | | | | | | | | | | | | Total Depth = 19 ft. |

N - STANDARD PENETRATION TEST RESISTANCE
P - POCKET PENETROMETER RESISTANCE
T - TXDOT CONE PENETRATION RESISTANCE
R - ROCK CORE RECOVERY
RQD - ROCK QUALITY DESIGNATION

REMARKS:
GPS COORDINATES: Lat. 31.955617, Long. -102.157978

PACKET 7.61 September 12, 2023
PACKET 11.63 November 14, 2023

BEYOND E&T LOG - LOG A GNNL01.GDT - 12/10/21 08:12 - C:\USERS\AMARKADAM.RRC\DESKTOP\GEOTECH\GT2111061 CITIZEN'S COLLECTION CENTER\FIELD INVESTIGATION\GT2111061 CITIZEN'S COLLECTION CENTER.GPJ

# LOG OF BORING B-2



Beyond Engineering and Testing, LLC
3011-B South County Road 1260
Midland, Texas 79706
Telephone: 432.561.5780
www.BeyondET.com

CLIENT: City of Midland
PROJECT: Citizen's Collection Station
LOCATION: Midland, Texas
NUMBER: GT2111061
DATE(S) DRILLED: 11/19/21

DRILLING METHOD(S): Air Rotary

GROUNDWATER INFORMATION: Groundwater not encountered during or immediately after drilling

SURFACE ELEVATION:

| DEPTH (FT) | SAMPLES | N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: % | MOISTURE CONTENT (%) | ATTERBERG LIMITS LL | ATTERBERG LIMITS PL | ATTERBERG LIMITS PI | DRY DENSITY POUNDS/CU.FT | COMPRESSIVE STRENGTH (TONS/SQ. FT) | STRAIN AT FAILURE (%) | CONFINING PRESSURE (POUNDS/SQ IN) | MINUS NO. 200 SIEVE (%) | DESCRIPTION OF STRATUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | Topsoil 2 inches |
| | | N = 6 | | | | | | | | | | SILTY SAND (SM), brown, loose, dry, fine to medium grained |
| | | N = 9 | 5.3 | 24 | 13 | 11 | | | | | 37.9 | CLAYEY SAND (SC), with gravel, light brown, loose to dense, dry, fine to medium grained |
| 5 | | N = 10 | 6.4 | | | | | | | | | Grading trace Gravel |
| | | N = 16 | 11.2 | 38 | 15 | 23 | | | | | 34.4 | |
| | | N = 50/6" | | | | | | | | | | SILTY SAND (SM), light brown, very dense, dry, fine to medium grained<br>Grading with Gravel |
| 10 | | | | | | | | | | | | |
| | | N = 50/2" | | | | | | | | | | |
| 15 | | | | | | | | | | | | |
| | | N = 50/1.5" | | | | | | | | | | |
| | | | | | | | | | | | | Total Depth = 19 ft. |

N - STANDARD PENETRATION TEST RESISTANCE
P - POCKET PENETROMETER RESISTANCE
T - TXDOT CONE PENETRATION RESISTANCE
R - ROCK CORE RECOVERY
RQD - ROCK QUALITY DESIGNATION

REMARKS:
GPS COORDINATES: Lat. 31.955419, Long. -102.158930

PACKET 7.62
September 12, 2023
PACKET 11.64
November 14, 2023

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# LOG OF BORING B-3



Beyond Engineering and Testing, LLC
3011-B South County Road 1260
Midland, Texas 79706
Telephone: 432.561.5780
www.BeyondET.com

CLIENT: City of Midland
PROJECT: Citizen's Collection Station
LOCATION: Midland, Texas
NUMBER: GT2111061
DATE(S) DRILLED: 11/19/21

DRILLING METHOD(S): Air Rotary

GROUNDWATER INFORMATION: Groundwater not encountered during or immediately after drilling

SURFACE ELEVATION:

| SOIL SYMBOL | DEPTH (FT) | SAMPLES | N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: % | MOISTURE CONTENT (%) | ATTERBERG LIMITS LIQUID LIMIT LL | ATTERBERG LIMITS PLASTIC LIMIT PL | ATTERBERG LIMITS PLASTICITY INDEX PI | DRY DENSITY POUNDS/CU.FT | COMPRESSIVE STRENGTH (TONS/SQ. FT) | STRAIN AT FAILURE (%) | CONFINING PRESSURE (POUNDS/SQ IN) | MINUS NO. 200 SIEVE (%) | DESCRIPTION OF STRATUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | Topsoil 1.5 inches |
| | | | N = 14 | 4.7 | 22 | 13 | 9 | | | | | 29.5 | CLAYEY SAND (SC), with gravel, light brown, medium dense, dry, fine to medium grained |
| | | | N = 18 | | | | | | | | | | |
| | 5 | | N = 20 | 4.8 | 20 | 12 | 8 | | | | | 36.7 | |
| | | | N = 12 | | | | | | | | | | Grading trace Gravel, light brown |
| | | | N = 77 | 4.8 | | | | | | | | | SILTY SAND (SM), brown, very dense, dry, fine to medium grained |
| | 10 | | | | | | | | | | | | |
| | | | N = 50/3" | | | | | | | | | | |
| | 15 | | | | | | | | | | | | |
| | | | N = 50/2" | | | | | | | | | | |
| | | | | | | | | | | | | | Total Depth = 19 ft. |

N - STANDARD PENETRATION TEST RESISTANCE
P - POCKET PENETROMETER RESISTANCE
T - TXDOT CONE PENETRATION RESISTANCE
R - ROCK CORE RECOVERY
RQD - ROCK QUALITY DESIGNATION

REMARKS:
GPS COORDINATES: Lat. 31.955276, Long. -102.159771

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PACKET 7.63 September 12, 2023

PACKET 11.65 November 14, 2023

BEYOND
Engineering & Testing

Beyond Engineering and Testing, LLC
3011-B South County Road 1260
Midland, Texas 79706
Telephone: 432.561.5780
www.BeyondET.com

## SUMMARY OF LABORATORY RESULTS

CLIENT: City of Midland
PROJECT: Citizen's Collection Station
LOCATION: Midland, Texas
NUMBER: GT2111061

| Borehole | Depth (ft) | USCS | Water Content (%) | Dry Unit Weight (pcf) | < No. 200 | LL | PL | PI | Compressive Strength (tsf) | Strain at Failure (%) | Confining Pressure (psi) | Chlorides (%/weight) | Sulfates (%/weight) | pH | Minimum Resistivity (ohm-cm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-1 | 0.0 | | 1 | | | | | | | | | 0.0005 | 0.0005 | | |
| B-1 | 2.0 | SM | 2 | | 17 | NP | NP | NP | | | | | | | |
| B-1 | 8.5 | SC | 7 | | 23 | 39 | 23 | 16 | | | | | | | |
| B-2 | 2.0 | SC | 5 | | 38 | 24 | 13 | 11 | | | | | | | |
| B-2 | 4.0 | | 6 | | | | | | | | | | | | |
| B-2 | 6.0 | SC | 11 | | 34 | 38 | 15 | 23 | | | | | | | |
| B-3 | 0.0 | SC | 5 | | 30 | 22 | 13 | 9 | | | | | | | |
| B-3 | 4.0 | SC | 5 | | 37 | 20 | 12 | 8 | | | | | | | |
| B-3 | 8.5 | | 5 | | | | | | | | | | | | |

PACKET 7.64 September 12, 2023

ND Not Detected; D Diluted;
*Denotes Total Unit Weight

# Client Sample Results

Client: Beyond Engineering & Testing, LLC
Project/Site: Citizen's Collection Center

Job ID: 880-9035-1

**Client Sample ID: B-1**
**Date Collected: 12/07/21 00:00**
**Date Received: 12/07/21 13:42**
**Sample Depth: 0 - 1.5**

**Lab Sample ID: 880-9035-1**
**Matrix: Solid**

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <4.95 | U | 4.95 | | mg/Kg | | | 12/09/21 14:43 | 1 |
| Sulfate | <4.95 | U | 4.95 | | mg/Kg | | | 12/09/21 14:43 | 1 |

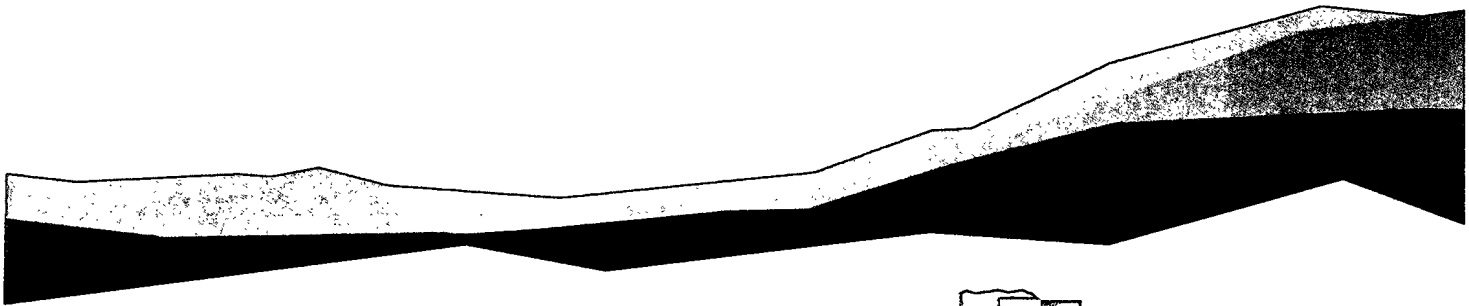
# Midland North CCS

## Geotechnical Engineering Report

July 14, 2023 | Terracon Project No. A4235100

**Prepared for:**

Parkhill
4222 85th St
Lubbock, TX 79423



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September 12, 2023
Nationwide
November 14, 2023

Terracon

10400 State Hwy 191
Midland, TX 79707
P (432) 684-9600
**Terracon.com**

July 14, 2023

Parkhill
4222 85th St
Lubbock, TX 79423

Attn: Mr. R. Ashley Coco - Senior Architectural Project Manager
E: acoco@Parkhill.com

Re: Geotechnical Engineering Report
Midland North CCS
2.5 Miles N-NW of Intersection of US Highway 349 and Occidental Parkway
Midland County, TX
Terracon Project No. A4235100

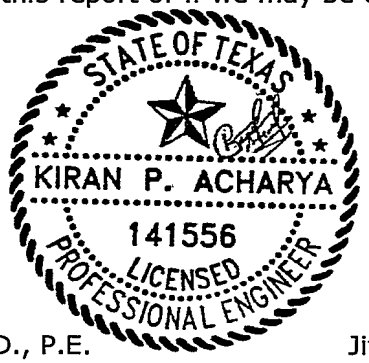
Dear Mr. Coco:

We have completed Geotechnical Engineering services for the above referenced project in general accordance with Terracon Email Quote dated May 25, 2023, and a Consulting Services Agreement between Parkhill and Terracon dated May 31, 2023. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design as well as construction of foundations, and pavements for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,

**Terracon**




FOR

Kiran P. Acharya, Ph.D., P.E.
Project Engineer

Jitendra "JT" Thakur, Ph.D., P.E.
Geotechnical Department Manager

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**Note:** This report was originally delivered in a web-based format. **Blue Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the Terracon logo will bring you back to this page. For more interactive features, please view your project online at **client.terracon.com.**

Refer to each individual Attachment for a listing of contents.

# Report Summary

| Topic [1] | Overview Statement [2] |
|---|---|
| **Project Description** | This project is to construct a small single-story pre-engineered metal building and a paved "Citizens Collection Station (CCS)" area for city of Midland Solid Waste department. |
| **Geotechnical Characterization** | Clayey gravel with sand was encountered within the upper about 2 feet of existing grades, underlain by very dense, cemented, calcareous materials, locally called "caliches". We expect on-site subsurface materials have low potential for shrink/swell with fluctuations in moisture content. The on-site subsurface materials can generally be used as structural fill provided that the caliche materials are crushed into sizes less than 4 inches in maximum dimensions, and they meet structural fill requirements. Groundwater was not encountered during our field exploration. |
| **Earthwork** | Heavy duty equipment will generally be suitable for earthwork, and utility trench excavations on the project site. Controlled blasting could be required for utility trench excavations in confined areas. |
| **Shallow Foundations** | Shallow foundations such as spread and/or continuous strip footings can generally be used to support the building. Net allowable bearing pressure of 3,000 pounds per square foot (psf) be used for design of shallow foundations. |
| **Pavements** | <u>Asphalt Pavement:</u><br>1.5" asphalt concrete over 8" of aggregate base course for Class I<br>2" asphalt concrete over 8" of aggregate base course for Class II<br>2.5" asphalt concrete over 10" of aggregate base course for Class III<br><u>Concrete Pavement:</u><br>5" PCC over 4" aggregate base for Category A<br>6" PCC over 4" aggregate base for Category D<br>7" PCC over 4" aggregate base for Category E |
| **General Comments** | This section contains important information about the limitations of this geotechnical engineering report. |

1. If the reader is reviewing this report as a pdf, the topics above can be used to access the appropriate section of the report by simply clicking on the topic itself.
2. This summary is for convenience only. It should be used in conjunction with the entire report for design purposes.

# Introduction

This report presents the results of our subsurface exploration and Geotechnical Engineering services performed for the Midland North CCS to be located about 2.5 Miles N-NW of Intersection of US Highway 349 and Occidental Parkway in Midland County, TX. The purpose of these services was to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Groundwater conditions
- Seismic site classification per IBC
- Site preparation and earthwork
- Foundation design and construction
- Pavement design and construction

The geotechnical engineering scope of services for this project included the advancement of soil-test borings, laboratory testing, engineering analysis, and preparation of this report.

Drawings showing the site and boring locations are shown on the **Site Location** and **Exploration Plan**, respectively. The results of laboratory testing performed on soil samples obtained from the site during our field exploration are included on the boring logs in the **Exploration Results** section.

# Project Description

Our initial understanding of the project was provided in our proposal and was discussed during project planning. A period of collaboration has transpired since the project was initiated, and our final understanding of the project conditions is as follows:

| Item | Description |
|---|---|
| **Information Provided** | A project site location and a construction layout were received from Mr. R. Ashley Coco of Parkhill via an email on May 25, 2023. |
| **Proposed Structures** | This project includes construction of a small pre-engineered metal building on the southern end, and a paved area for trash collection at the northern portion of the site. The paved area will be a CCS for city of Midland Solid Waste department. |

| Item | Description |
|---|---|
| **Foundation Types** | We expect the building will be supported on shallow foundations, such as spread and/or continuous strip footings. |
| **Finished Floor Elevation** | Finished floor elevation is assumed to be within 2 feet of existing grades. |
| **Maximum Loads (Assumed)** | ▪ Column loads: 50 kips<br>▪ Wall loads: 1.5 kips per linear foot (klf)<br>▪ Slab loads: 125 psf |
| **Pavements (Assumed)** | We understand that CCS area will be paved. We assume that the traffic classification for design of asphalt pavement will consist of:<br>▪ Class I: Parking stalls for autos and pickup trucks [Equivalent Single Axle Loads (ESALs) = 7,000]<br>▪ Class II: Traffic consisting of home delivery trucks, trash pickup (ESALs = 27,000)<br>▪ Class III: Delivery lanes with up to ten 3-axle trucks per day (ESALs = 107,000)<br>The anticipated ACI traffic categories and daily truck traffic for design of concrete pavement are assumed to consist of:<br>▪ Category A: Car and auto parking areas and access lanes, 10 trucks per day<br>▪ Category D: Heavy-duty trucks, 1 truck per day<br>▪ Category E: Fire or trash truck lanes, 1 truck per day<br>The pavement design period is 20 years. |

Terracon should be notified if any of the above information is inconsistent with the planned construction, especially the grading limits and structural loads, as modifications to our recommendations may be necessary.

# Site Conditions

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

| Item | Description |
|---|---|
| **Parcel Information** | Midland North CCS site is located about 2.5 Miles N-NW of Intersection of US Highway 349 and Occidental Parkway in Midland County, TX. The coordinates of approximate center of the site are 32.1038°N, 102.0955°W. See **Site Location** |
| **Existing Improvements** | None |
| **Current Ground Cover** | Exposed soils, grasses, and mesquites |
| **Existing Topography** | Relatively flat |

We also collected photographs at the time of our field exploration program. Representative photos are provided in our **Photography Log**.

# Geotechnical Characterization

We have developed a general characterization of the subsurface conditions based upon our review of the subsurface exploration, laboratory data, geologic setting, and our understanding of the project. This characterization, termed GeoModel, forms the basis of our geotechnical calculations and evaluation of the site. Conditions observed at each exploration point are indicated on the individual log. The individual log can be found in the **Exploration Results** and the GeoModel can be found in the **Figures** attachment of this report.

As part of our analyses, we identified the following model layers within the subsurface profile. For a more detailed view of the model layer depths at the boring location, please refer to the GeoModel.

| Model Layer | Layer Name | General Description |
|---|---|---|
| 1 | Sand and Gravel | Clayey gravel with sand; very dense |
| 2 | Caliche | Silty clayey sand with gravel; very dense |

Excavation difficulties are generally anticipated within Model Layer 2.

Caliche is a calcium-carbonate-cemented material. Caliche has many resemblances to rock. It is difficult to excavate caliche materials.

The borings were advanced in the dry using air rotary drilling technique that allows short-term groundwater observation to be made while drilling. Groundwater seepage was not

encountered or observed in either of the borings within the maximum drilling depths of about 24 feet bgs at the time of our field exploration. Groundwater is not expected to affect shallow foundation construction at this site.

Groundwater conditions may be different at the time of construction. Groundwater conditions may change because of seasonal variations in rainfall, runoff, and other conditions not apparent at the time of drilling. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project. Long-term groundwater monitoring was outside the scope of services for this project.

# Seismic Site Class

The seismic design requirements for buildings and other structures are based on Seismic Design Category. Site Classification is required to determine the Seismic Design Category for a structure. The Site Classification is based on the upper 100 feet of the site profile defined by a weighted average value of either shear wave velocity, standard penetration resistance, or undrained shear strength in accordance with Section 20.4 of ASCE 7 and the International Building Code (IBC). Based on the soil/rock properties observed at the site and as described on the exploration log and results, our professional opinion is for that a **Seismic Site Classification of C** be considered for the project. Subsurface exploration at this site was extended to a maximum depth of about 24 feet bgs. The site properties below the boring depth to 100 feet were estimated based on our experience and knowledge of geologic conditions of the general area. Additional deeper boring or geophysical testing may be performed to confirm the conditions below the current boring depth.

# Geotechnical Overview

The area to the west of the project site is previously developed. Although no deleterious materials, such as construction debris, or organics were encountered during our field exploration or observed in the collected samples, we caution that potential existing fill that contains deleterious materials could exist on the project site in areas away from our borings. If deleterious materials are detected during construction, Terracon should be notified immediately to provide consultation. In general, deleterious materials can be replaced with structural fill.

The site appears suitable for the proposed development based upon geotechnical conditions encountered in the test borings, provided that the recommendations provided in this report are implemented in the design and construction phases of this project.

We expect on-site subsurface materials have low potential for shrink/swell with fluctuations in moisture content. Moisture-induced potential vertical movements are estimated to be less than 1 inch. The on-site soils are generally suitable for use as structural fill. Based on the conditions encountered and estimated load-settlement relationships, the proposed building can be supported on shallow spread/continuous strip footings.

According to the 2021 International Structures Code (Section 1613.3.2), IBC seismic site classification for this site is determined to be C. The recommendations contained in this report are based upon the results of field and laboratory testing (presented in the **Exploration Results**), engineering analyses, and our current understanding of the proposed project. The **General Comments** section provides an understanding of the report limitations.

# Earthwork

Earthwork will include clearing and grubbing, excavations, and fill placement. The following sections provide recommendations for use in the preparation of specifications for the work. Recommendations include critical quality criteria as necessary to render the site in the state considered in our geotechnical engineering evaluation for foundations.

## Site Preparation

Prior to placing fill, striping of existing topsoil, vegetations, and root mats should be performed in the proposed development area. The soil materials which contain less than 5 percent organics can be reused as structural fill provided the material is moisture conditioned and properly compacted.

## Subgrade Preparation

We suggest after site preparation operation is conducted; the entire site should be proofrolled. The proofrolling should be conducted with an adequately loaded vehicle such as a fully-loaded tandem-axle dump truck. The proofrolling should be performed under the observation of the Geotechnical Engineer or representative. Areas excessively deflecting under the proofrolling should be delineated and subsequently addressed by the Geotechnical Engineer. Excessively wet or dry material should either be removed, or moisture conditioned and recompacted as per **Fill Placement and Compaction Requirements** section.

All exposed areas which will receive fill, once properly cleared and benched where necessary, should be scarified to a minimum depth of 10 inches, and compacted per the

compaction requirements in this report. Compacted structural fill soils should then be placed to the proposed design grade and the moisture content and compaction of subgrade soils should be maintained until foundation or pavement construction.

## Excavation

Based on the conditions encountered, we believe heavy-duty equipment, such as a hoe ram, a heavy dozer equipped with a ripper, a rock saw or jack hammer or with rock trenching equipment, will generally be required for earthwork and utility-trench excavations. Controlled blasting (trench excavations) could be required for utility trench excavations in confined areas. The bottom of excavations should be thoroughly cleaned of loose soils and disturbed materials prior to backfill placement and/or construction.

The descriptions provided below are a guide to conditions generally encountered in the region of the project site. Required excavation techniques will vary based on weathering of the materials to be excavated, the fracturing, jointing and overall stratigraphy of the feature. Actual field conditions usually display a gradual weathering progression with poorly defined and uneven boundaries between layers of different materials. We recommend that the following definitions for rock in earthwork excavation be included in bid documents:

| Excavation Type | Definition |
|---|---|
| Mass Excavation | Any material occupying an original volume of more than 1 cubic yard which cannot be excavated with a single-toothed ripper drawn by a crawler tractor having a minimum draw bar pull rating of not less than 80,000 pounds usable pull (Caterpillar D-8 or larger). |
| Trench Excavation | Any material occupying an original volume of more than 1/2 cubic yard which cannot be excavated with a backhoe having a bucket curling rate of not less than 40,000 pounds, using a rock bucket and rock teeth (a John Deere 790 or larger). |

## Fill Material Types

Fill required to achieve design grade should be classified as structural fill and general fill. Structural fill is material used below, or within 10 feet of structures, pavements, or constructed slopes. General fill is material used to achieve grade outside of these areas.

**Reuse of On-Site Soil:** Excavated on-site soil may be re-used as fill. Material property requirements for on-site soil for use as general fill and structural fill are noted in the table below:

| Property | General Fill | Structural Fill |
|---|---|---|
| Composition | Free of deleterious material | Free of deleterious material |
| Maximum particle size | 6 inches | 4 inches |
| Fines content | Not limited | 10% to 50% Passing No. 200 sieve |
| Plasticity | Not limited | Maximum liquid limit of 35 and maximum plasticity index of 15 |
| GeoModel Layer Expected to be Suitable[1,2] | 1,2 | 1,2 |

1. Based on subsurface exploration. Actual material suitability should be determined in the field at time of construction.
2. Caliche materials should be crushed into sizes less than 4 inches in maximum dimensions and should meet structural fill requirements before they can be used as structural fill.

**Imported Fill Materials:** Imported fill materials should meet the following material property requirements. Regardless of its source, compacted fill should consist of approved materials that are free of organic matter and debris. Frozen material should not be used, and fill should not be placed on a frozen subgrade.

| Soil Type [1] | USCS Classification | Acceptable Parameters (for Structural Fill) |
|---|---|---|
| Low Plasticity Cohesive | CL, CL-ML | Liquid Limit less than 35<br>Plasticity index less than 15<br>25% to 50% retained on No. 200 sieve |
| Granular | GW, GP, GM, GC, SW, SP, SM, SC | 10% to 50% passing No. 200 sieve |

1. Structural and general fill should consist of approved materials free of organic matter and debris. A sample of each material type should be submitted to the Geotechnical Engineer for evaluation prior to use on this site.

## Fill Placement and Compaction Requirements

Structural and general fill should meet the following compaction requirements.

| Item | Structural Fill | General Fill |
|---|---|---|
| **Maximum Lift Thickness** | 8 inches or less in loose thickness when heavy, self-propelled compaction equipment is used<br>4 inches in loose thickness when hand-guided equipment (i.e., jumping jack or plate compactor) is used | Same as structural fill |
| **Minimum Compaction Requirements** [1,2] | At least 95% of the material's maximum dry density in all fill areas. | Same as structural fill |
| **Water Content Range** [1] | -2% to +2% of optimum moisture content | As required to achieve min. compaction requirements |

1. Maximum density and optimum water content as determined by the standard Proctor test (ASTM D 698).
2. If the granular material is a coarse sand or gravel, or of a uniform size, or has a low fines content, compaction comparison to relative density may be more appropriate. In this case, granular materials should be compacted to at least 70% relative density (ASTM D 4253 and D 4254).

## Utility Trench Backfill

Any soft or unsuitable materials encountered at the bottom of utility trench excavations should be removed and replaced with structural fill or bedding material in accordance with public works specifications for the utility be supported. This recommendation is particularly applicable to utility work requiring grade control and/or in areas where subsequent grade raising could cause settlement in the subgrade supporting the utility. Trench excavation should not be conducted below a downward 1:1 projection from existing foundations without engineering review of shoring requirements and geotechnical observation during construction.

Trench backfills should be mechanically placed and compacted as discussed earlier in this report. Compaction of initial lifts should be accomplished with hand-operated tampers or other lightweight compactors. Where trenches are placed beneath slabs or footings, the backfill should satisfy the gradation and plasticity index requirements of engineered fill discussed in this report. Flooding or jetting for placement and compaction of backfill is not recommended.

## Grading and Drainage

Positive drainage should be provided during construction and maintained throughout the life of the development. Infiltration of water into utility trenches or foundation excavations should be prevented during construction. Water retained next to the foundation areas can result in soil movements greater than those discussed in this report. Greater movements can result in unacceptable differential foundation movements. The roof should have gutters/drains with downspouts that discharge onto splash blocks at a distance of at least 10 feet from the building.

In areas where sidewalks or paving do not immediately adjoin structures, we recommend that protective slopes be provided with a minimum grade of approximately 5 percent for at least 10 feet from foundation areas. After foundations construction, final grades should be verified to document effective drainage has been achieved. Grades around the structures should also be periodically inspected and adjusted as necessary as part of the structures' maintenance program. Where paving or flatwork abuts the structure, a maintenance program should be established to effectively seal and maintain joints and prevent surface water infiltration.

## Earthwork Construction Considerations

Shallow excavations for the proposed structures are anticipated to be accomplished with heavy duty construction equipment. Upon completion of earthwork, care should be taken to maintain the subgrade water content prior to construction foundations. Construction traffic over the completed subgrades should be avoided. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. Water collecting over or adjacent to construction areas should be removed. If the subgrade freezes, desiccates, saturates, or is disturbed, the affected material should be removed, or the materials should be scarified, moisture conditioned, and recompacted prior to foundation construction.

As a minimum, excavations should be performed in accordance with OSHA 29 CFR, Part 1926, Subpart P, "Excavations" and its appendices, and in accordance with any applicable local and/or state regulations.

Construction site safety is the sole responsibility of the contractor who controls the means, methods, and sequencing of construction operations. Under no circumstances shall the information provided herein be interpreted to mean Terracon is assuming responsibility for construction site safety or the contractor's activities; such responsibility shall neither be implied nor inferred.

Excavations or other activities resulting in ground disturbance have the potential to affect adjoining properties and structures. Our scope of services does not include review of available final grading information or consider potential temporary grading performed

by the contractor for potential effects such as ground movement beyond the project limits. A preconstruction/precondition survey should be conducted to document nearby property/infrastructure prior to any site development activity. Excavation or ground disturbance activities adjacent or near property lines should be monitored or instrumented for potential ground movements that could negatively affect adjoining property and/or structures.

### Construction Observation and Testing

The earthwork efforts should be monitored under the direction of the Geotechnical Engineer or representative. Monitoring should include documentation of adequate removal of vegetation and topsoil, proof-rolling and mitigation of areas delineated by the proof-roll to require mitigation.

Each lift of compacted fill should be tested, evaluated, and reworked as necessary until approved by the Geotechnical Engineer prior to placement of additional lifts. Each lift of fill should be tested for density and water content at a frequency of at least one test for every 2,500 square feet of compacted fill in the proposed structure areas, and at least one test for every 5,000 square feet of compacted fill in the proposed pavement construction area. One density and water content test should be conducted for every 50 linear feet of compacted utility trench backfill.

In areas of foundation excavations, the bearing subgrade should be evaluated under the direction of the Geotechnical Engineer or representative. In the event that unanticipated conditions are encountered, the Geotechnical Engineer should prescribe mitigation options.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer's evaluation of subsurface conditions, including assessing variations and associated design changes.

## Shallow Foundations

If the site has been prepared in accordance with the requirements noted in **Earthwork**, the following design parameters are applicable for shallow foundations.

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## Design Parameters – Compressive Loads

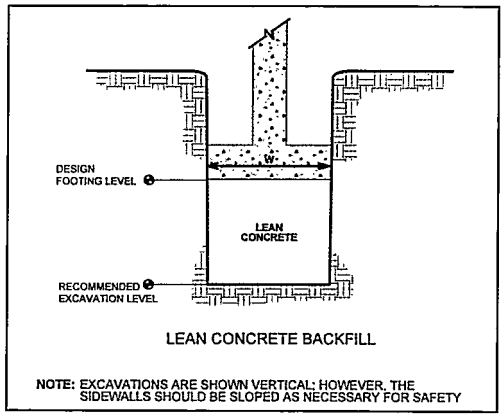
| Item | Description |
|---|---|
| **Maximum Net Allowable Bearing Pressure** [1, 2] | 3,000 psf (footings) |
| **Required Bearing Stratum** [3] | GeoModel Layer 1 or 2 or properly compacted structural fill extending to undisturbed native soils) |
| **Minimum Foundation Dimensions** | 30 inches for spread footings<br>18 inches for continuous strip footings |
| **Ultimate Passive Resistance**[4] | 360 pcf |
| **Sliding Resistance** [5] | 0.35 |
| **Minimum Embedment below Finished Grade** [6] | 24 inches |
| **Estimated Total Settlement from Structural Loads** [2] | Less than 1 inch |
| **Estimated Differential Settlement** [2, 7] | Less than 1/2 inch |

1. The maximum net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. Values assume that exterior grades are no steeper than 20% within 10 feet of structure.
2. Values provided are for the maximum loads noted in **Project Description**. Additional geotechnical consultation will be necessary if higher loads are anticipated.
3. Unsuitable or soft soils should be over-excavated and replaced per the recommendations presented in **Earthwork**.
4. Use of passive earth pressures require the sides of the excavation for the spread footing foundation to be nearly vertical and the concrete placed neat against these vertical faces or that the footing forms be removed, and compacted structural fill be placed against the vertical footing face. Assumes no hydrostatic pressure.
5. Can be used to compute sliding resistance where foundations are placed on suitable soil/materials. Frictional resistance for granular materials is dependent on the bearing pressure which may vary due to load combinations. For fine-grained materials, lateral resistance using cohesion should not exceed ½ the dead load.
6. Embedment necessary to minimize the effects of frost and/or seasonal water content variations. For sloping ground, maintain depth below the lowest adjacent exterior grade within 5 horizontal feet of the structure.
7. Differential settlements are noted for equivalent-loaded foundations and bearing elevation as measured over a span of 50 feet.

## Foundation Construction Considerations

As noted in **Earthwork**, the footing excavations should be evaluated under the observation of the Geotechnical Engineer. The base of all foundation excavations should be free of water and loose soil, prior to placing concrete. Concrete should be placed soon after excavating to reduce bearing soil disturbance. Care should be taken to prevent wetting or drying of the bearing materials during construction. Excessively wet or dry material or any loose/disturbed material in the bottom of the footing excavations should be removed/reconditioned before foundation concrete is placed.

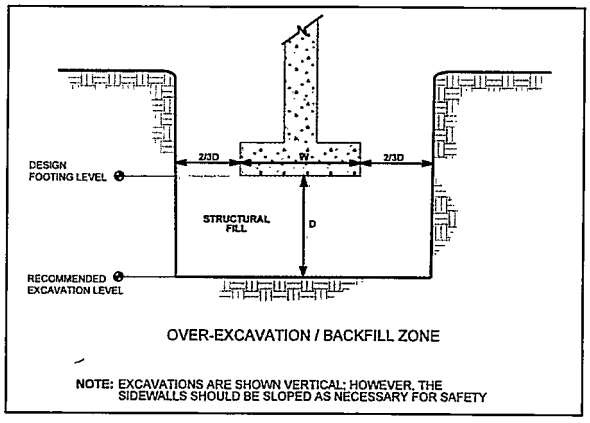
If unsuitable bearing soils are observed at the base of the planned footing excavation, the excavation should be extended deeper to suitable soils, and the footings could bear directly on these soils at the lower level or on lean concrete backfill placed in the excavations. The lean concrete replacement zone is illustrated on the sketch below.




LEAN CONCRETE BACKFILL

NOTE: EXCAVATIONS ARE SHOWN VERTICAL; HOWEVER, THE SIDEWALLS SHOULD BE SLOPED AS NECESSARY FOR SAFETY

Alternatively, over-excavation for structural fill placement below footings should be conducted as shown below. The over-excavation should be backfilled up to the footing base elevation, with suitable fill placed, as recommended in the **Earthwork** section.




OVER-EXCAVATION / BACKFILL ZONE

NOTE: EXCAVATIONS ARE SHOWN VERTICAL; HOWEVER, THE SIDEWALLS SHOULD BE SLOPED AS NECESSARY FOR SAFETY

# Floor Slabs

## Floor Slab Design Parameters

Design parameters for floor slabs assume the requirements for **Earthwork** have been followed. Specific attention should be given to positive drainage away from the structure and positive drainage of the aggregate base beneath the floor slab.

| Item | Description |
|---|---|
| **Floor Slab Support**[1] | At least 12 inches of properly compacted native soils or properly compacted caliche materials (sizes less than 4 inches in maximum dimensions and meet structural fill requirement) or properly compacted structural fill as needed to achieve finished pad elevation. |
| **Estimated Modulus of Subgrade Reaction**[2] | 125 psi/inch for point loading conditions |

1. Floor slabs should be structurally independent of building footings or walls to reduce the possibility of floor slab cracking caused by differential movements between the slab and foundation.
2. Modulus of subgrade reaction is an estimated value based upon our experience with the subgrade condition, the requirements noted in **Earthwork**, and the floor slab support as noted in this table. It is provided for point loads. For large area loads the modulus of subgrade reaction would be lower.

A conventional slab-on-grade system can be used on the project site; no structural slab is necessary because on-site soils are not expansive soils. The use of a vapor retarder should be considered beneath concrete slabs on grade covered with wood, tile, carpet, or other moisture sensitive or impervious coverings, when the project includes humidity-controlled areas, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder, the slab designer should refer to ACI 302 and/or ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder.

Saw-cut contraction joints should be placed in the slab to help control the location and extent of cracking. For additional recommendations, refer to the ACI Design Manual. Joints or cracks should be sealed with a waterproof, non-extruding compressible compound specifically recommended for heavy duty concrete pavement and wet environments.

Where floor slabs are tied to perimeter walls or turn-down slabs to meet structural or other construction objectives, our experience indicates differential movement between the walls and slabs will likely be observed in adjacent slab expansion joints or floor slab cracks beyond the length of the structural dowels. The Structural Engineer should account for potential differential settlement through use of sufficient control joints, appropriate reinforcing, or other means.

### Floor Slab Construction Considerations

Finished subgrade, within and for at least 5 feet beyond the floor slab, should be protected from traffic, rutting, or other disturbance and maintained in a relatively moist condition until floor slabs are constructed. If the subgrade should become damaged or desiccated prior to construction of floor slabs, the affected material should be removed, and structural fill should be added to replace the resulting excavation. Final conditioning of the finished subgrade should be performed immediately prior to placement of the floor slab support course.

The Geotechnical Engineer or representative should approve the condition of the floor slab subgrades immediately prior to placement of the floor slab support course, reinforcing steel, and concrete. Attention should be paid to high traffic areas that were rutted and disturbed earlier, and to areas where backfilled trenches are located.

## Pavements

### Pavement – Subgrade Preparation

The natural subgrade should be uniformly compacted to the criteria in section **Fill Placement and Compaction Requirements** of this report. It should then be protected and maintained in a moist condition until the pavement is placed. Pavement subgrades should be graded to prevent ponding and infiltration of excessive moisture on or adjacent to the pavement subgrade surface.

Site grading is generally accomplished early in the construction phase. However, as construction proceeds, the subgrade may be disturbed due to utility excavations, construction traffic, desiccation, or rainfall. Thus, the pavement subgrade may not be suitable for pavement construction and corrective action will be required. The subgrade should be carefully evaluated at the time of pavement construction for signs of disturbance or excessive rutting. If disturbance has occurred, pavement subgrade areas should be reworked, moisture conditioned, and properly compacted to the recommendations provided in this report immediately prior to paving.

## General Pavement Comments

Pavement designs are provided for the traffic conditions and pavement life conditions as noted in **Project Description** and in the following sections of this report. A critical aspect of pavement performance is site preparation. Pavement designs noted in this section must be applied to the site which has been prepared as recommended in the **Earthwork** section.

## Pavement Design Parameters

A California Bearing Ratio (CBR) of 4 was used for the subgrade for the asphaltic concrete (AC) pavement designs. A modulus of subgrade reaction of 125 pci was used for the portland cement concrete (PCC) pavement designs. The value was empirically derived based upon our experience with the similar subgrade soils and our expectation of the quality of the subgrade as prescribed by the **Site Preparation** conditions as outlined in **Earthwork**. A modulus of rupture of 550 psi was used in design for the concrete (based on correlations with a minimum 28-day compressive strength of 4,000 psi).

## Pavement Section Thicknesses

The following table provides our opinion of minimum thickness for Asphaltic Concrete (AC) sections:

**Asphaltic Concrete Design**

| Layer | Thickness (inches) | | |
|---|---|---|---|
| | Traffic Class I [1] | Traffic Class II [1] | Traffic Class III [1] |
| AC [2,3] | 1.5 | 2 | 2.5 |
| Aggregate Base | 8 | 8 | 10 |

1. See **Project Description** for more specifics regarding traffic assumptions.
2. All materials should meet the Texas Department of Transportation (TXDOT) Standard Specifications for Highway Construction.
   - Asphaltic Surface – Plant mixed, hot laid Type C or D Surface, meeting the master specifications requirements of 2014 TXDOT Standard Specifications Item SS 3224 (2011) and specific criteria for the job mix formula.
   - Asphaltic Base - Crushed limestone base meeting all of the requirements of 2014 TxDOT Item 247, Type A, Grade 1-2.
3. A minimum 1.5-inch surface course should be used on AC pavements.

The following table provides our estimated minimum thickness of Portland Cement Concrete (PCC) pavements.

**Portland Cement Concrete Design**

| Layer | Thickness (inches) | | |
|---|---|---|---|
| | Traffic Category A [1] | Traffic Category D [1] | Traffic Category E [1] |
| PCC [2] | 5 | 6 | 7 |
| Aggregate Base | 4 | 4 | 4 |

1. See **Project Description** for more specifics regarding traffic classifications.
2. All materials should meet the Texas Department of Transportation (TXDOT) Standard Specifications for Highway Construction.

Areas for parking of heavy vehicles, concentrated turn areas, and start/stop maneuvers could require thicker pavement sections. Edge restraints (i.e., concrete curbs or aggregate shoulders) should be planned along curves and areas of maneuvering vehicles.

Although not required for structural support, a minimum 4-inch-thick base course layer is recommended to help reduce potential for slab curl, shrinkage cracking, and subgrade pumping through joints. Proper joint spacing will also be required to prevent excessive slab curling and shrinkage cracking. Joints should be sealed to prevent entry of foreign material and doweled where necessary for load transfer. PCC pavement details for joint spacing, joint reinforcement, and joint sealing should be prepared in accordance with ACI 330 and ACI 325.

Where practical, we recommend early-entry cutting of crack-control joints in PCC pavements. Cutting of the concrete in its "green" state typically reduces the potential for micro-cracking of the pavements prior to the crack control joints being formed, compared to cutting the joints after the concrete has fully set. Micro-cracking of pavements may lead to crack formation in locations other than the sawed joints, and/or reduction of fatigue life of the pavement.

Openings in pavements, such as decorative landscaped areas, are sources for water infiltration into surrounding pavement systems. Water can collect in the islands and migrate into the surrounding subgrade soils thereby degrading support of the pavement. Islands with raised concrete curbs, irrigated foliage, and low permeability near-surface soils are particular areas of concern. The civil design for the pavements with these conditions should include features to restrict or collect and discharge excess water from the islands. Examples of features are edge drains connected to the stormwater collection system, longitudinal subdrains, or other suitable outlets and impermeable barriers

preventing lateral migration of water such as a cutoff wall installed to a depth below the pavement structure.

## Pavement Drainage

Pavements should be sloped to provide rapid drainage of surface water. Water allowed to pond on or adjacent to the pavements could saturate the subgrade and contribute to premature pavement deterioration. In addition, the pavement subgrade should be graded to provide positive drainage within the granular base section. Appropriate sub-drainage or connection to a suitable daylight outlet should be provided to remove water from the granular subbase.

## Pavement Maintenance

The pavement sections represent minimum recommended thicknesses and, as such, periodic upkeep should be anticipated. Preventive maintenance should be planned and provided for through an on-going pavement management program. Maintenance activities are intended to slow the rate of pavement deterioration and to preserve the pavement investment. Pavement care consists of both localized (e.g., crack, and joint sealing and patching) and global maintenance (e.g., surface sealing). Additional engineering consultation is recommended to determine the type and extent of a cost-effective program. Even with periodic maintenance, some movements and related cracking may still occur, and repairs may be required.

Pavement performance is affected by its surroundings. In addition to providing preventive maintenance, the civil engineer should consider the following recommendations in the design and layout of pavements:

- Final grade adjacent to paved areas should slope down from the edges at a minimum 2%.
- Subgrade and pavement surfaces should have a minimum 2% slope to promote proper surface drainage.
- Install pavement drainage systems surrounding areas anticipated for frequent wetting.
- Install joint sealant and seal cracks immediately.
- Seal all landscaped areas in or adjacent to pavements to reduce moisture migration to subgrade soils.
- Place compacted, low permeability backfill against the exterior side of curb and gutter.
- Place curb, gutter and/or sidewalk directly on clay subgrade soils rather than on unbound granular base course materials.

# General Comments

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials, or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly affect excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety and cost estimating including excavation support and dewatering requirements/design are the responsibility of others.

Construction and site development have the potential to affect adjacent properties. Such impacts can include damages due to vibration, modification of groundwater/surface water flow during construction, foundation movement due to undermining or subsidence from excavation, as well as noise or air quality concerns. Evaluation of these items on nearby properties are commonly associated with contractor means and methods and are not addressed in this report. The owner and contractor should consider a preconstruction/precondition survey of surrounding development. If changes in the

nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

# Figures

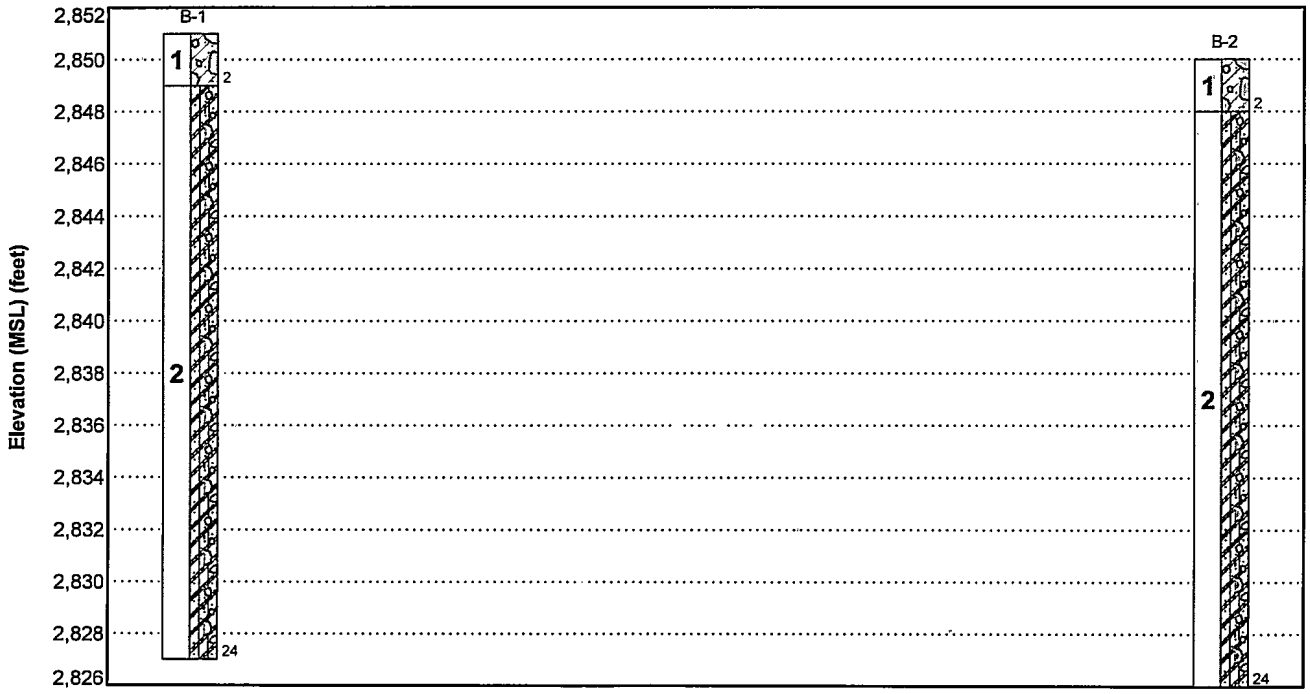
**Contents:**

GeoModel

Midland North CCS
2.5 Miles North-Northwest of Intersection of US Highway 349 and Occidental Parkway | Midland County, TX
Terracon Project No. A4235100

Terracon
10400 State Highway 191
Midland, TX

# GeoModel




This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

| Model Layer | Layer Name | General Description |
|---|---|---|
| 1 | **Sand and Gravel** | Clayey gravel with sand; very dense |
| 2 | **Caliche** | Silty clayey sand with gravel; very dense |

## LEGEND

Clayey Gravel with Sand

Silty Clayey Sand with Gravel

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project. Numbers adjacent to soil column indicate depth below ground surface.

# Attachments

# Exploration and Testing Procedures

## Field Exploration

| Number of Borings | Boring Depth (feet) [1, 2] | Location |
|---|---|---|
| B-1 | 24 | Building Footprint Area |
| B-2 | 24 | Citizens Collection Station (CCS) Area |

1. Below ground surface
2. Borings were terminated at depths of about 1 foot shorter than the planned depths due to very dense caliche materials.

**Boring Layout and Elevations:** Terracon personnel provided the boring layout. Elevations were estimated at the boring locations using Google Earth Pro. We used handheld GPS equipment to locate borings with an estimated horizontal accuracy of +/- 20 feet. If more precise elevation and boring coordinates are desired, we recommend the borings be surveyed.

**Subsurface Exploration Procedures:** We advanced the borings with a truck-mounted rotary drill rig using air rotary drilling method. Five samples were obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. In the split-barrel sampling procedure, a standard 2-inch outer diameter split-barrel sampling spoon was driven into the ground by a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. For safety purposes, all borings were backfilled with auger cuttings after their completion.

We also observed the boreholes while drilling and at the completion of drilling for the presence of groundwater. Groundwater was not observed at these times in the boreholes.

The sampling depths, penetration distances, and other sampling information was recorded on the field boring logs. The samples were placed in appropriate containers and taken to our soil laboratory for testing and classification by a Geotechnical Engineer. Our exploration team prepared field boring logs as part of the drilling operations. These field logs included visual classifications of the materials observed during drilling and our interpretation of the subsurface conditions between samples. Final boring logs were prepared from the field logs. The final boring logs represent the Geotechnical Engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.

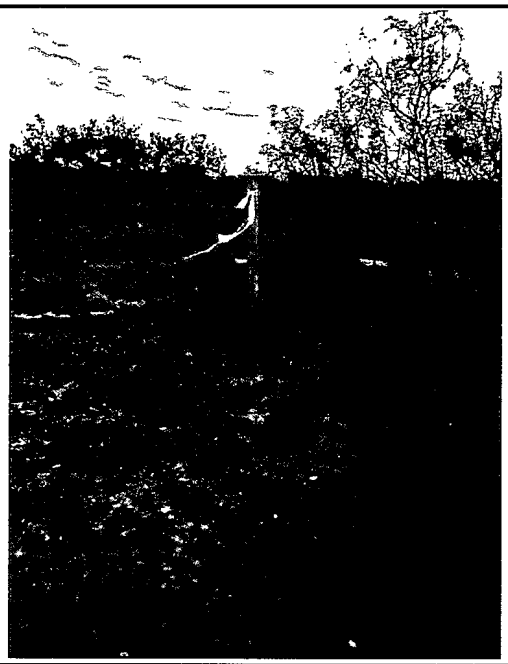
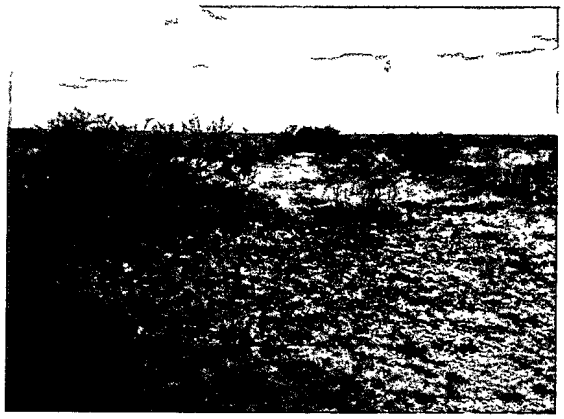
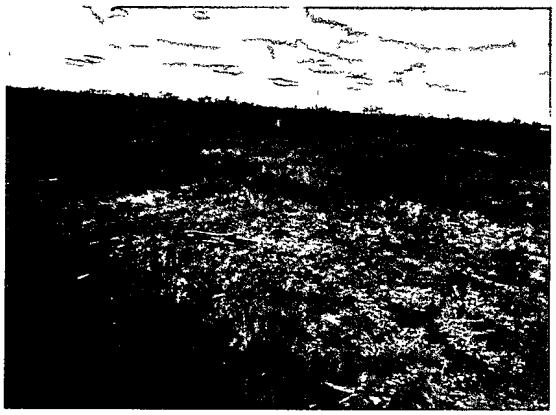
## Laboratory Testing

The project engineer reviewed the field data and assigned laboratory tests. The laboratory testing program included the following types of tests:

- Moisture Content
- Dry Unit Weight
- Atterberg Limits

The laboratory testing program often included examination of soil samples by an engineer. Based on the results of our field and laboratory programs, we described and classified the soil samples in accordance with the Unified Soil Classification System.

# Photography Log

| | |
|---|---|
|  |  |
| Boring B-1 | Boring B-2 |
|  |  |
| Site Picture 1 (Picture taken facing Northeast of the site) | Site Picture 2 (Picture taken facing East of the site) |

# Site Location and Exploration Plans

**Contents:**

Site Location Plan
Exploration Plan

Note: All attachments are one page unless noted above.

SITE LOCATION
Midland North CCS ■ Midland County, TX
July 14, 2023 ■ Terracon Project No. A4235100

Terracon GeoReport

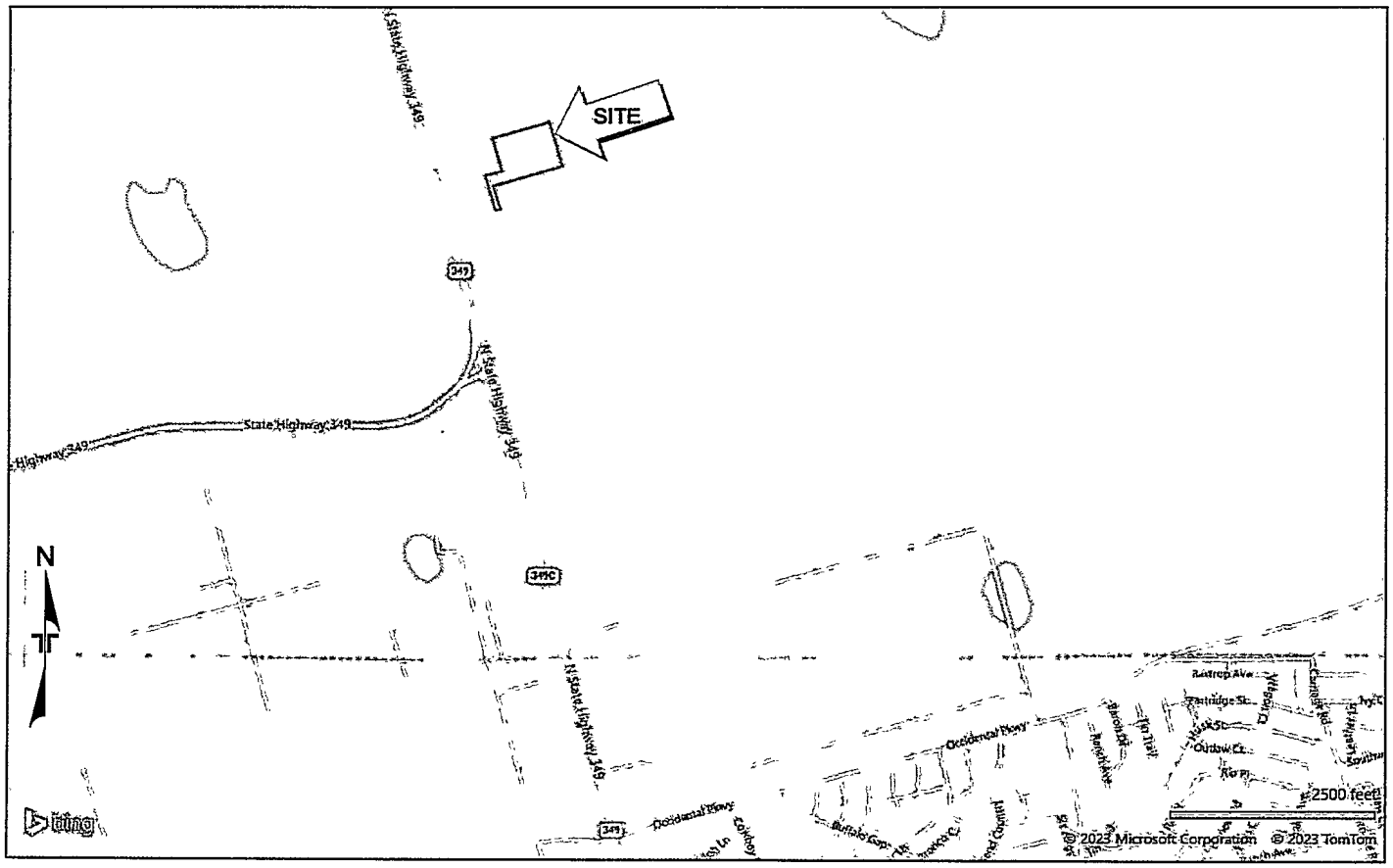



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AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

EXPLORATION PLAN
Midland North CCS ■ Midland County, TX
July 14, 2023 ■ Terracon Project No. A4235100

Terracon GeoReport




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Terracon GeoReport

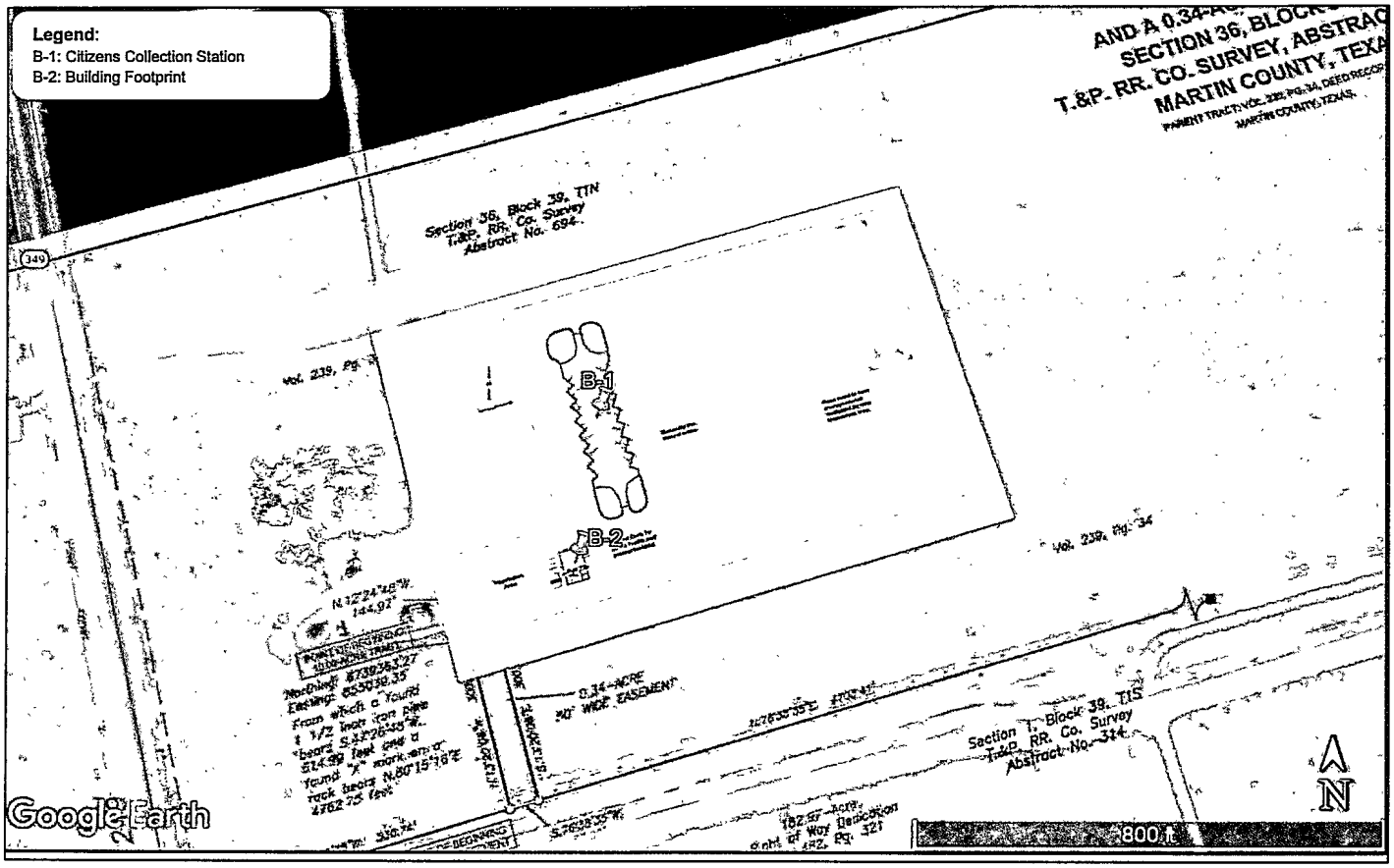



DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

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IMAGERY FROM GOOGLE EARTH PRO ©2023 MAXAR TECHNOLOGIES, IMAGERY PROVIDED BY MICROSOFT BING MAPS

# Exploration and Laboratory Results

**Contents:**

Boring Logs (2 pages)
Atterberg Limits
Grain Size Distribution

Note: All attachments are one page unless noted above.

Midland North CCS
2.5 Miles North-Northwest of Intersection of US Highway 349 and Occidental Parkway | Midland County, TX
Terracon Project No. A4235100

Terracon
10400 State Highway 191
Midland, TX

# Boring Log No. B-1

Location: See Exploration Plan
Latitude: 32.1038° Longitude: -102.0956°

| Model Layer | Graphic Log | Depth (Ft.) | Elevation: 2851 (Ft.) +/- | Depth (Ft.) | Water Level Observations | Sample Type | Field Test Results | Water Content (%) | Atterberg Limits LL-PL-PI | Percent Fines |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 0 | **CLAYEY GRAVEL WITH SAND (GC)**, dark brown, very dense | | | | 6-36-50/2" | 11.0 | 33-15-18 | 19 |
| | | 2.0 | 2849 | | | | | | | |
| 2 | | | **SILTY CLAYEY SAND WITH GRAVEL, locally called caliche (SC-SM)**, dark brown to tannish white, very dense | 5 | | | 50/5" | | | |
| | | | | | | | 50/3" | | | |
| | | | | | | | 29-50/2" | | | |
| | | | | 10 | | | 50/2" | 1.2 | 25-18-7 | |
| | | | | | | | 50/4" | | | |
| | | | | 15 | | | | | | |
| | | | | | | | 50/2" | | | |
| | | | | 20 | | | | | | |
| | | 24.0 | 2827 | | | | 50/3" | | | |
| | | | ***Boring Terminated at 24 Feet*** | | | | | | | |

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

**Notes**
Elevation Reference: Elevation information obtained from Google Earth

**Water Level Observations**
No groundwater encountered while drilling

Dry at the completion of drilling

**Advancement Method**
Air rotary

**Abandonment Method**
Boring backfilled with auger cuttings upon completion.

**Drill Rig**
CME-75

**Hammer Type**
Automatic

**Driller**
Antonio

**Logged by**
Eddie S.

**Boring Started**
06-09-2023

**Boring Completed**
06-09-2023

Midland North CCS
2.5 Miles North-Northwest of Intersection of US Highway 349 and Occidental Parkway | Midland County, TX
Terracon Project No. A4235100

Terracon
10400 State Highway 191
Midland, TX

# Boring Log No. B-2

Location: See Exploration Plan
Latitude: 32.1031° Longitude: -102.0957°

| Model Layer | Graphic Log | Depth (Ft.) | Elevation: 2850 (Ft.) +/- | Depth (Ft.) | Water Level Observations | Sample Type | Field Test Results | Water Content (%) | Atterberg Limits LL-PL-PI | Percent Fines |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 0.0 | **CLAYEY GRAVEL WITH SAND (GC)**, dark brown, very dense | | | | 13-28-50/3" | | | |
| | | 2.0 | 2848 | | | | | | | |
| 2 | | 2.0 | **SILTY CLAYEY SAND WITH GRAVEL, locally called caliche (SC-SM)**, dark brown to tannish white, very dense | | | | 50/4" | | | |
| | | | | 5 | | | 50/3" | | | |
| | | | | | | | 50/4" | | | |
| | | | | | | | 50/2" | | | |
| | | | | 10 | | | | | | |
| | | | | | | | 50/3" | | | |
| | | | | 15 | | | | | | |
| | | | | | | | 50/2" | 1.3 | 25-18-7 | |
| | | | | 20 | | | | | | |
| | | 24.0 | 2826 | | | | 50/2" | | | |
| | | | ***Boring Terminated at 24 Feet*** | | | | | | | |

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

**Notes**
Elevation Reference: Elevation information obtained from Google Earth

**Water Level Observations**
No groundwater encountered while drilling

Dry at the completion of drilling

**Advancement Method**
Air rotary

**Abandonment Method**
Boring backfilled with auger cuttings upon completion.

**Drill Rig**
CME-75

**Hammer Type**
Automatic

**Driller**
Antonio

**Logged by**
Eddie S.

**Boring Started**
06-09-2023

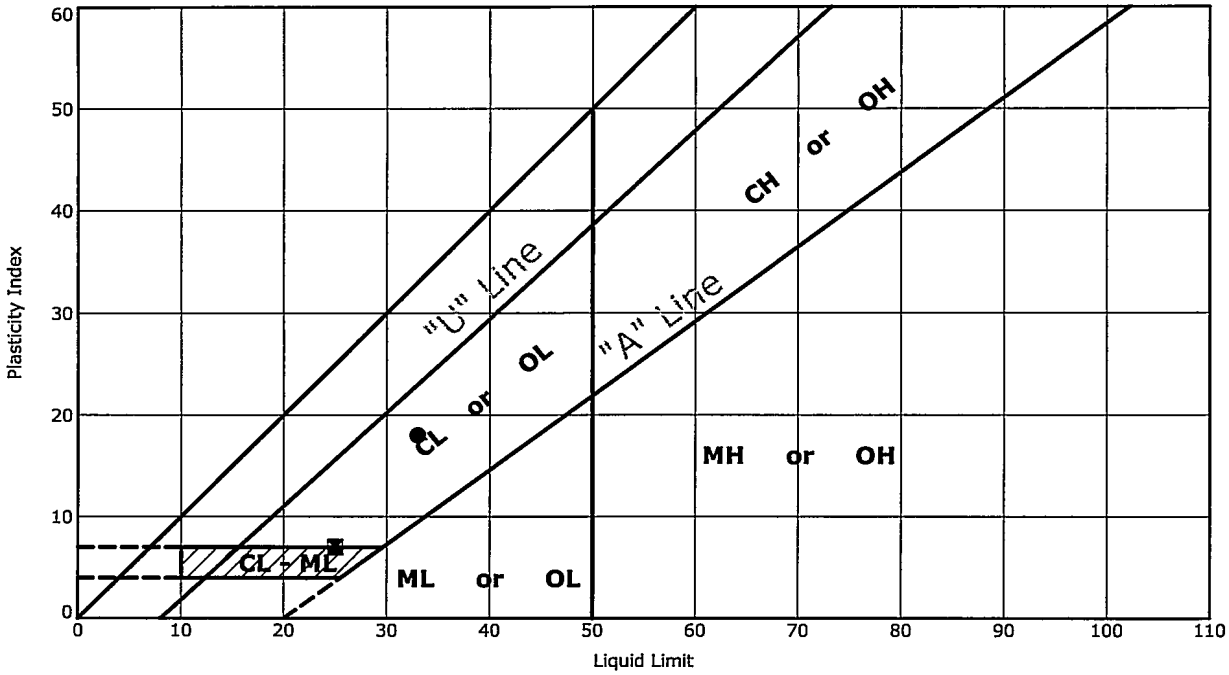
**Boring Completed**
06-09-2023

Midland North CCS
2.5 Miles North-Northwest of Intersection of US Highway 349 and Occidental Parkway | Midland County, TX
Terracon Project No. A4235100

Terracon
10400 State Highway 191
Midland, TX

# Atterberg Limit Results

**ASTM D4318**



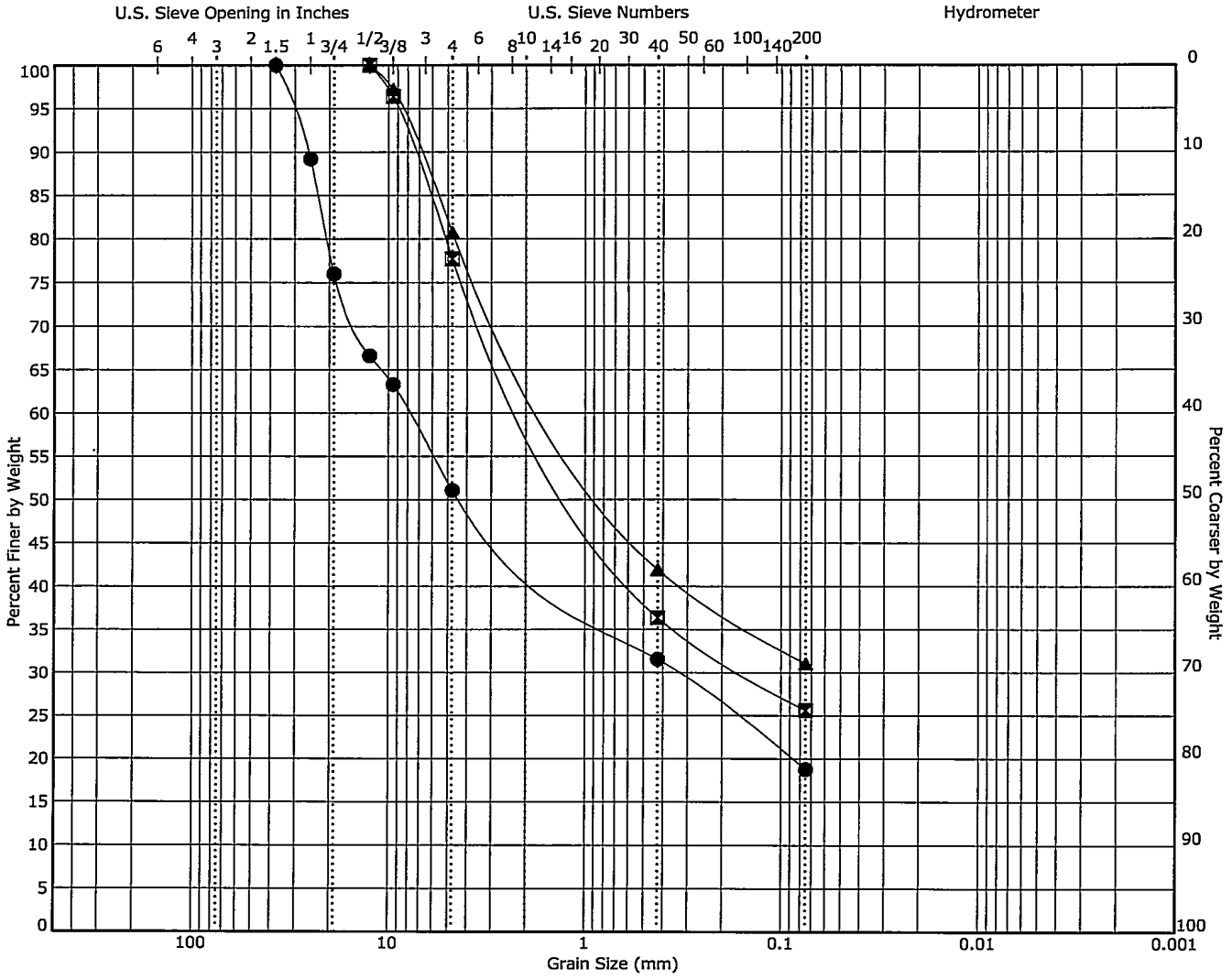

| | Boring ID | Depth (Ft) | LL | PL | PI | Fines | USCS | Description |
|---|---|---|---|---|---|---|---|---|
| ● | B-1 | 0 - 1.2 | 33 | 15 | 18 | 18.8 | GC | CLAYEY GRAVEL with SAND |
| ⊠ | B-1 | 8.5 - 8.7 | 25 | 18 | 7 | | SC-SM | SILTY, CLAYEY SAND with GRAVEL |
| ▲ | B-2 | 18.5 - 18.7 | 25 | 18 | 7 | | SC-SM | SILTY, CLAYEY SAND with GRAVEL |

Midland North CCS
2.5 Miles North-Northwest of Intersection of US Highway 349 and Occidental Parkway | Midland County, TX
Terracon Project No. A4235100

Terracon
10400 State Highway 191
Midland, TX

# Grain Size Distribution

## ASTM D422 / ASTM C136




| Cobbles | Gravel | | Sand | | | Silt or Clay |
|---|---|---|---|---|---|---|
| | coarse | fine | coarse | medium | fine | |

| | Boring ID | Depth (Ft) | Description | | LL | PL | PI | Cc | Cu |
|---|---|---|---|---|---|---|---|---|---|
| ● | B-1 | 0 - 1.2 | CLAYEY GRAVEL with SAND | | 33 | 15 | 18 | | |
| ⊠ | B-1 | 8.5 - 8.7 | SILTY, CLAYEY SAND with GRAVEL | | 25 | 18 | 7 | | |
| ▲ | B-2 | 18.5 - 18.7 | SILTY, CLAYEY SAND with GRAVEL | | 25 | 18 | 7 | | |

| | Boring ID | Depth (Ft) | $D_{100}$ | $D_{60}$ | $D_{30}$ | $D_{10}$ | %Cobbles | %Gravel | %Sand | %Fines | %Silt | %Clay |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ● | B-1 | 0 - 1.2 | 37.5 | 7.874 | 0.344 | | 0.0 | 48.9 | 32.3 | 18.8 | | |
| ⊠ | B-1 | 8.5 - 8.7 | 12.5 | 1.688 | 0.152 | | 0.0 | 22.3 | 52.1 | | | |
| ▲ | B-2 | 18.5 - 18.7 | 12.5 | 1.308 | | | 0.0 | 19.3 | 49.7 | | | |

# Supporting Information

**Contents:**

General Notes
Unified Soil Classification System

Note: All attachments are one page unless noted above.

Terracon
10400 State Highway 191
Midland, TX

# General Notes

| Sampling | Water Level | Field Tests |
|---|---|---|
| Standard Penetration Test | Water Initially Encountered<br>Water Level After a Specified Period of Time<br>Water Level After a Specified Period of Time<br>Cave In Encountered<br>Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations. | N Standard Penetration Test Resistance (Blows/Ft.)<br>(HP) Hand Penetrometer<br>(T) Torvane<br>(DCP) Dynamic Cone Penetrometer<br>UC Unconfined Compressive Strength<br>(PID) Photo-Ionization Detector<br>(OVA) Organic Vapor Analyzer |

## Descriptive Soil Classification

Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

## Location And Elevation Notes

Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See Exploration and Testing Procedures in the report for the methods used to locate the exploration points for this project. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

## Strength Terms

**Relative Density of Coarse-Grained Soils**
(More than 50% retained on No. 200 sieve.)
Density determined by Standard Penetration Resistance

| Relative Density | Standard Penetration or N-Value (Blows/Ft.) |
|---|---|
| Very Loose | 0 - 3 |
| Loose | 4 - 9 |
| Medium Dense | 10 - 29 |
| Dense | 30 - 50 |
| Very Dense | > 50 |

**Consistency of Fine-Grained Soils**
(50% or more passing the No. 200 sieve.)
Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance

| Consistency | Unconfined Compressive Strength Qu (tsf) | Standard Penetration or N-Value (Blows/Ft.) |
|---|---|---|
| Very Soft | less than 0.25 | 0 - 1 |
| Soft | 0.25 to 0.50 | 2 - 4 |
| Medium Stiff | 0.50 to 1.00 | 4 - 8 |
| Stiff | 1.00 to 2.00 | 8 - 15 |
| Very Stiff | 2.00 to 4.00 | 15 - 30 |
| Hard | > 4.00 | > 30 |

## Relevance of Exploration and Laboratory Test Results

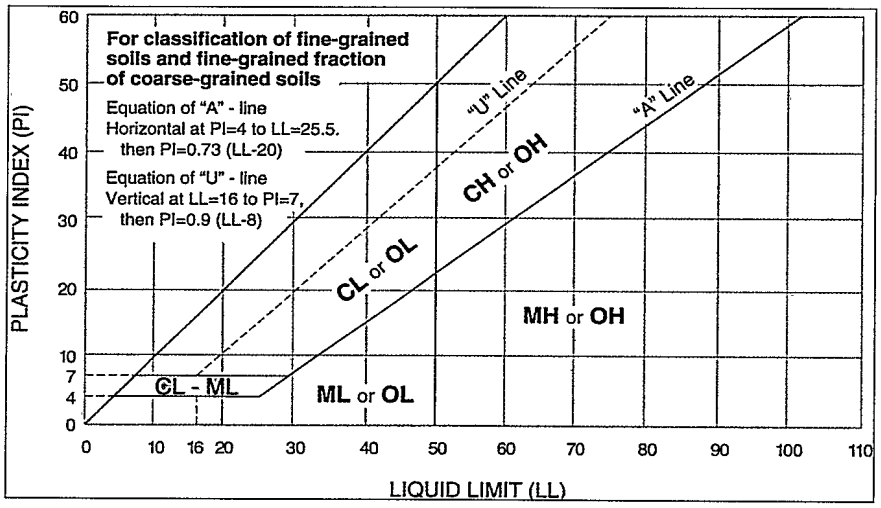
Exploration/field results and/or laboratory test data contained within this document are intended for application to the project as described in this document. Use of such exploration/field results and/or laboratory test data should not be used independently of this document.

Terracon

# Unified Soil Classification System

| Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A] | | | | Soil Classification | |
|---|---|---|---|---|---|
| | | | | Group Symbol | Group Name [B] |
| **Coarse-Grained Soils:** More than 50% retained on No. 200 sieve | **Gravels:** More than 50% of coarse fraction retained on No. 4 sieve | **Clean Gravels:** Less than 5% fines [C] | Cu≥4 and 1≤Cc≤3 [E] | GW | Well-graded gravel [F] |
| | | | Cu<4 and/or [Cc<1 or Cc>3.0] [E] | GP | Poorly graded gravel [F] |
| | | **Gravels with Fines:** More than 12% fines [C] | Fines classify as ML or MH | GM | Silty gravel [F, G, H] |
| | | | Fines classify as CL or CH | GC | Clayey gravel [F, G, H] |
| | **Sands:** 50% or more of coarse fraction passes No. 4 sieve | **Clean Sands:** Less than 5% fines [D] | Cu≥6 and 1≤Cc≤3 [E] | SW | Well-graded sand [I] |
| | | | Cu<6 and/or [Cc<1 or Cc>3.0] [E] | SP | Poorly graded sand [I] |
| | | **Sands with Fines:** More than 12% fines [D] | Fines classify as ML or MH | SM | Silty sand [G, H, I] |
| | | | Fines classify as CL or CH | SC | Clayey sand [G, H, I] |
| **Fine-Grained Soils:** 50% or more passes the No. 200 sieve | **Silts and Clays:** Liquid limit less than 50 | **Inorganic:** | PI > 7 and plots above "A" line [J] | CL | Lean clay [K, L, M] |
| | | | PI < 4 or plots below "A" line [J] | ML | Silt [K, L, M] |
| | | **Organic:** | $\frac{LL\ oven\ dried}{LL\ not\ dried} < 0.75$ | OL | Organic clay [K, L, M, N] / Organic silt [K, L, M, O] |
| | **Silts and Clays:** Liquid limit 50 or more | **Inorganic:** | PI plots on or above "A" line | CH | Fat clay [K, L, M] |
| | | | PI plots below "A" line | MH | Elastic silt [K, L, M] |
| | | **Organic:** | $\frac{LL\ oven\ dried}{LL\ not\ dried} < 0.75$ | OH | Organic clay [K, L, M, P] / Organic silt [K, L, M, Q] |
| **Highly organic soils:** | Primarily organic matter, dark in color, and organic odor | | | PT | Peat |

[A] Based on the material passing the 3-inch (75-mm) sieve.
[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.
[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay.
[E] $Cu = D_{60}/D_{10}$ $Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
[F] If soil contains ≥ 15% sand, add "with sand" to group name.
[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.
[H] If fines are organic, add "with organic fines" to group name.
[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.
[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.
[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.
[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.
[N] PI ≥ 4 and plots on or above "A" line.
[O] PI < 4 or plots below "A" line.
[P] PI plots on or above "A" line.
[Q] PI plots below "A" line.



**Parkhill**

# ADDENDUM NO: 005

| | |
|---|---|
| **TO:** | **ALL PLANHOLDERS** |
| **FROM:** | **PARKHILL** |
| **PROJECT NAME:** | **CITY OF MIDLAND NORTH AND WEST CITIZEN'S COLLECTION CENTERS** |
| **PROJECT NO.:** | **01.6119.21** |
| **DATE:** | **August 14, 2023** |

PARKHILL SMITH & COOPER, INC. F-560
STATE OF TEXAS
SPENSER J. HARVEY
138737
LICENSED PROFESSIONAL ENGINEER
08/14/2023

**NOTE: Please make sure you are referencing the Project Manual and Drawings with issue date of July 14, 2023 and not the preliminary set dated June 2023.**

Attention of all Prospective Proposers/Plan Holders is directed to the following modifications to the referenced Drawings and Project Manual. This Addendum becomes a part of the Contract Documents and modifies the original Contract Documents dated July 14, 2023 as noted below:

This Addendum consists of 3 page(s), the Section 01 22 00 Measurement and Payment, the attached drawing(s) no(s). C-101, C-106, C-112, and E-501.

I. CHANGES TO PRIOR ADDENDA:

1. NONE

II. CHANGES TO PROJECT MANUAL:

1. SECTION 01 22 00 – MEASUREMENT AND PAYMENT
   a. ADD this Section in its entirety.

III. CHANGES TO DRAWINGS:

1. SHEET C-101 – WEST CCS SITE LAYOUT PLAN
   a. ADD this Sheet in its entirety.

2. SHEET C-106 – NORTH CCS SITE LAYOUT PLAN
   a. ADD this Sheet in its entirety.

3. SHEET C-112 – NORTH CCS LANDSCAPE PLAN
   a. ADD this Sheet in its entirety.

4. SHEET E-501 – ELECTRICAL RISER DIAGRAM AND DETAILS
   a. ADD this Sheet in its entirety.

IV. QUESTIONS AND CLARIFICATIONS:

Concrete

1. 20 mil poly is specified and called for in the plans. It is a special order item that would require us to purchase 12 roll pallet + freight (currently about 300); when we are only needing 4 rolls. Would the engineer entertain 15 mil poly because of local supply and cost? Added cost is more than $3,200

   RESPONSE: Substitution of 15 mil barrier is not acceptable for this project.

2. S-502; C1 shows 4" PVC, C-101 & C-106 note 15 call for 6" x 2" drainage cut outs per Detail B4/S-502; but there is no detail. What does the owner/architect/engineer want to do?

   RESPONSE: Refer to revised sheet C-101 and C-106 for drainage cut out.

3. Is there any details for the light pole bases?

   RESPONSE: Refer to revised Sheet E-501 as part of this addendum.

Septic Tanks

4. What is the amount of water discharge (gallons per day) of the RO system identified on Plumbing Plan, P-111, Note 1?

   RESPONSE: The RO system is expected to discharge 1 gallon of water per day.

Landscaping

5. Plant Schedule on North CCS Landscape Plan C-112 lists 9 Chinese Pistache, however plan shows 17 trees. Please clarify the quantity.

   RESPONSE: Refer to C-112 as part of this addendum.

6. There's no detail or section for the border going around the areas where the trees and ¾" Rock Mulch will be contained. Plan C-112. Please confirm if steel lawn edging is acceptable or what to consider to contain the Rock Mulch.

   RESPONSE: Refer to C-112 as part of this addendum.

Cold-Formed Metal Framing

7. In the loading bay area, there's no detail showing any framing to connect the treated plywood to the perimeter walls. Please confirm if we need to figure 3-5/8 framing behind it or what to consider.

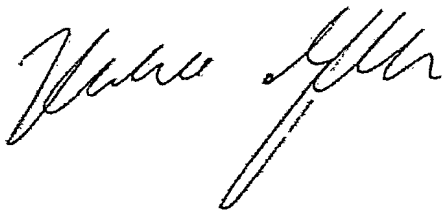
   RESPONSE: Attached the 3/4" plywood to 14 ga x2x2 base angle attached with 1"X-U Hilti pins at 24" center at the slab aligned with the girts above. Secure the plywood sheet to the 14 ga x2x2 clip angle attached with 1"X-U Hilti pins at 24" center, the 5-foot girt, and the 7-foot girt.

Electrical

8. Can you provide the information on the trash Compactor & Guard shack. Need the Voltage & amperage for the trach compactor and location. We need to know where the Guard shack will be located and what electrical & data is required if any and location.

   RESPONSE: Refer to revised Section 01 22 00 Measurement and Payment.

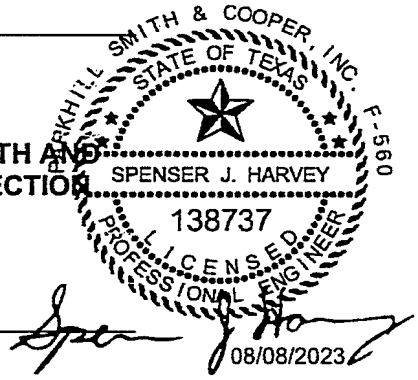
END OF ADDENDUM 005



**Parkhill**

# ADDENDUM NO: 004

| | |
|---|---|
| **TO:** | **ALL PLANHOLDERS** |
| **FROM:** | **PARKHILL** |
| **PROJECT NAME:** | **CITY OF MIDLAND NORTH AND WEST CITIZEN'S COLLECTION CENTERS** |
| **PROJECT NO.:** | **01.6119.21** |
| **DATE:** | **August 8, 2023** |




**NOTE: Please make sure you are referencing the Project Manual and Drawings with issue date of July 14, 2023 and not the preliminary set dated June 2023.**

Attention of all Prospective Proposers/Plan Holders is directed to the following modifications to the referenced Drawings and Project Manual. This Addendum becomes a part of the Contract Documents and modifies the original Contract Documents dated July 14, 2023 as noted below:

This Addendum consists of 1 page(s), Section 00 42 00 Proposal Form, and Section 01 22 00 Measurement of Payment.

**Questions must be received no later than 12:00 PM CDT on Friday, August 11, 2023.**

I. CHANGES TO PRIOR ADDENDA:

1. NONE

II. CHANGES TO ADVERTISEMENT

1. **PROPOSAL DATE AND TIME CHANGE**
   a. **Proposal Date and Time changed to the following: August 16, 2023 at 2:00 PM, local time.**

III. CHANGES TO PROJECT MANUAL:

1. SECTION 00 42 00 – PROPOSAL FORM
   a. REPLACE this Section in its entirety as attached to this Addendum.

2. SECTION 01 22 00 – MEASUREMENT AND PAYMENT
   a. REPLACE this Section in its entirety as attached to this Addendum.

IV. CHANGES TO DRAWINGS:

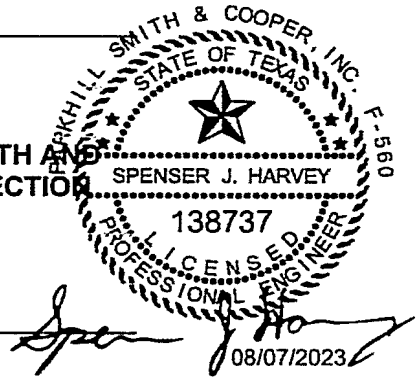
1. NONE

END OF ADDENDUM 004

# Parkhill

# ADDENDUM NO: 003

| | |
|---|---|
| **TO:** | **ALL PLANHOLDERS** |
| **FROM:** | **PARKHILL** |
| **PROJECT NAME:** | **CITY OF MIDLAND NORTH AND WEST CITIZEN'S COLLECTION CENTERS** |
| **PROJECT NO.:** | **01.6119.21** |
| **DATE:** | **August 7, 2023** |




**NOTE: Please make sure you are referencing the Project Manual and Drawings with issue date of July 14, 2023 and not the preliminary set dated June 2023.**

Attention of all Prospective Proposers/Plan Holders is directed to the following modifications to the referenced Drawings and Project Manual. This Addendum becomes a part of the Contract Documents and modifies the original Contract Documents dated July 14, 2023 as noted below:

This Addendum consists of 4 page(s), the attached drawing(s) no(s). C-112, and Pre-Proposal Agenda.

I. CHANGES TO PRIOR ADDENDA:

1. NONE

II. CHANGES TO PROJECT MANUAL:

1. NONE

III. CHANGES TO DRAWINGS:

1. SHEET C-112 – NORTH CCS LANDSCAPE PLAN
   a. ADDED this Sheet in its entirety.

IV. QUESTIONS AND CLARIFICATIONS:

North Citizens' Collection Station Project- questions:

1. What modifications to the entrance road?

   RESPONSE: Connection to HWY 349.

2. Where is the electrical?

   RESPONSE: Working with Oncor to determine. Take utilities out of building 5 feet for tie in.

3. Water source?

   RESPONSE: City water.

4. Septic source

   RESPONSE: Septic systems are included in the construction drawings.

5. Inspections? ETJ permits are they required? Who is paying for them?

   RESPONSE: Confirm with City of Midland Permitting office.

6. Storm pond dirt okay to use?

   RESPONSE Onsite soil maybe used for structural fill. Processing.

West Citizens' Collection Station Project- questions:

7. Where is the electrical?

   RESPONSE: On site.

8. Water source?

   RESPONSE: Water well by current white building.

9. Septic source

   RESPONSE: Septic systems are included in the construction drawings.

10. City based approved material okay for this project? Road base items?

    RESPONSE: Road base items are detailed on Sheet C-501.

11. Storm pond dirt okay to use?

    RESPONSE: Refer to Geotech Reports include in Project Manual in reference to the suitability of onsite material for use as fill material.

12. Transportation material currently house on site, where will that go? Moved to?

    RESPONSE: Material may be stockpiled onsite during construction. Excess material not determined to be waste may be stockpiled onsite.

13. What is the function of the building?

    RESPONSE: Operation/Oversight of the entire facility.

General questions:

14. Completion dates?

    RESPONSE: Looking at 9 months to one (1) year. Both sites need to be completed simultaneously.

15. Will chemicals be brought in?

    RESPONSE: No, City is not permitted for chemicals.

16. Mezzanine in the plans?

    RESPONSE: Yes, mezzanine is for storage.

17. County requiring permits?

    RESPONSE: Confirm with Midland County Public Works.

18. Item 38 of the North Site BID Form corresponds to Landscaping and Irrigation, however no plans are included.

    RESPONSE: Sheet C-112, included with this addendum, displays the landscaping plan.

19. Curbs are shown within the Plans but there's no bid item for them. Please clarify.

    RESPONSE: Curb construction work is performed under Proposal item 7 and Proposal item 26 for the respective site.

20. Onsite material will not meet specs, is there going to be a line item added for imported materials? If we need to consider to screen the onsite materials, is there going to be a line item added for screening?

    RESPONSE: Refer to Geotech reports included in Project Manual in reference to the suitability of onsite material for use as fill material.

21. Is there any GEO TECH Report available for these locations? ; If not, are rock clauses to be excluded?

    RESPONSE: Geotech reports were included for both sites in Project Manual.

22. Project Manual (pages 2-7) shows a Note specifying not to use the manual for regulatory approval, construction, bidding, or permit purposes. Please confirm if there will be a revision of the specifications or how to proceed.

    RESPONSE: Sealed Project Manual was previously issued for construction use and obtaining AHJ permits as needed.

23. Please confirm the location of new utilities. (Water & electrical), or should we consider 5' stub-outs from the buildings.

    RESPONSE: Yes, extend utilities outside buildings 5 feet for connections.

24. Please confirm if the electrical subcontractor will be responsible for removing the overhead lines and poles marked with Note 5 or Power Company will be taking care of them. Plan C-001.

    RESPONSE: Contractor will be responsible for removing the overhead lines and poles marked with Note 5.

25. Is there a Door Hardware Schedule available? Not included within the Plans or the Project Manual.

    RESPONSE: Please refer to sealed Project Manual previously released.

26. There are (2) corner guards but no size. Please inform the wing size and the height.

    RESPONSE: Provide "CO-8" stainless steel corner guards from Construction Specialties or equal. Leg size is 3-1/2 inches, height is 48 inches installed above specified base utilizing adhesive installation, following manufacturer's written installation instructions.

27. Please confirm if exposed structure ceiling or structural steel called to paint on this project.

    RESPONSE: Workbay and Mezzanine have no ceiling and are exposed to structure. Exposed steel to be painted as specified in 09 91 23, color to be selected by Architect/Engineer from manufacturer's full range. Metals to be painted with basis of design product (or equal):
    - Semi-Gloss Finish High Performance:
      - 1ST Coat: S-W Pro Industrial Pro-Cryl Universal Primer, B66-1310 Series (5.0 mils wet, 2.0 mils dry).
      - 2ND Coat: S-W Pro Industrial Acrylic Semi-Gloss, B66-650 Series.
      - 3RD Coat: S-W Pro Industrial Acrylic Semi-Gloss, B66-650 Series (2.0-4.0 mils dry per coat).

END OF ADDENDUM 003

**Parkhill**

# ADDENDUM NO: 002

| | |
|---|---|
| **TO:** | **ALL PLANHOLDERS** |
| **FROM:** | **PARKHILL** |
| **PROJECT NAME:** | **CITY OF MIDLAND NORTH AND WEST CITIZEN'S COLLECTION CENTERS** |
| **PROJECT NO.:** | **01.6119.21** |
| **DATE:** | **JULY 31, 2023** |

PARKHILL SMITH & COOPER, INC. F-560
STATE OF TEXAS
SPENSER J. HARVEY
138737
LICENSED PROFESSIONAL ENGINEER
07/31/2023

**NOTE: Please make sure you are referencing the Project Manual and Drawings with issue date of July 14, 2023 and not the preliminary set dated June 2023.**

Attention of all Prospective Proposers/Plan Holders is directed to the following modifications to the referenced Drawings and Project Manual. This Addendum becomes a part of the Contract Documents and modifies the original Contract Documents dated July 14, 2023 as noted below:

This Addendum consists of 1 page and the attached drawing no. S-001.

I. CHANGES TO PRIOR ADDENDA:

1. NONE

II. CHANGES TO PROJECT MANUAL:

1. NONE

III. CHANGES TO DRAWINGS:

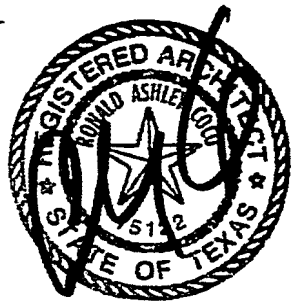
1. S-001 – GENERAL NOTES
   a. Foundations note E, reference corrected to West CCS building.
   b. Note F added to reference Geotechnical report for North CCS building.
   c. Location on sheet of Concrete notes, Site Planning and Fill Notes and Pre-Engineered Building notes adjusted.

END OF ADDENDUM 002

**Parkhill**

# ADDENDUM NO: 001

| | |
|---|---|
| TO: | ALL PLANHOLDERS |
| FROM: | PARKHILL |
| PROJECT NAME: | CITY OF MIDLAND NORTH AND WEST CITIZEN'S COLLECTION CENTERS |
| PROJECT NO.: | 01.6119.21 |
| DATE: | JULY 18, 2023 |




07/18/2023

Attention of all Prospective Proposers/Plan Holders is directed to the following modifications to the referenced Drawings and Project Manual. This Addendum becomes a part of the Contract Documents and modifies the original Contract Documents dated May 11, 2022 as noted below:

This Addendum consists of 2 pages.

I. CHANGES TO PROJECT MANUAL:

1. SECTION 01 11 20 – REQUEST FOR PROPSALS
   a. REVISE Paragraph 1.9 (PRE-PROPOSAL CONFERENCE) to read:
      "A. A pre-proposal conference will be held on **Tuesday, July 25, 2023** at the Project site at **2:30 p.m. local time**. Attendance by Proposers is not mandatory.
      **B. The North site does not have an address. It can be located with these coordinates: 32.105819, 102.098981. That is approximately 2/3 mile north of the Hwy 349 N and Craddock Hwy (reliever route) intersection, past the new water tower:**



**C. The West site address is 6400 W Highway 80, Midland, Texas."**

II. CHANGES TO DRAWINGS:

*NONE*

END OF ADDENDUM 001

## DOCUMENT 00 42 00 - PROPOSAL FORM

Date: August 16, 2023

City of Midland
300 North Loraine Street
Midland, Texas 79701

City Secretary:

The undersigned, having carefully examined the specifications, drawings, and related documents entitled:

WEST AND NORTH CITIZENS' COLLECTION STATIONS
MIDLAND, TEXAS

all as prepared by Parkhill 1700 West Wall Street, Suite 100, Midland, Texas 79701; 432.697.1447, as well as having attended a pre-proposal conference and made an on-site inspection of the premises and all other conditions affecting the cost and/or execution of the Work, proposes to furnish all materials, labor, and equipment necessary to complete the Work in accordance with said documents, of which this Proposal is a part, for the following price(s):

**West Site**

| Item No. | Description | Unit | Estimated Quantity | Proposal Unit Price | Proposal Amount |
|---|---|---|---|---|---|
| 1 | Mobilization (5% Maximum) | LS | 1 | $45,000.00 | $ 45,000.00 |
| 2 | Erosion Control | LS | 1 | $ 5,000.00 | $ 5,000.00 |
| 3 | Excavation | CY | 6,800 | $ 7.80 | $ 53,040.00 |
| 4 | Embankment (fill) | CY | 12,800 | $ 19.00 | $ 244,224.00 |
| 5 | Furnish and install 3-inch thick Type "B " HMAC, 9" base course, 12" Subgrade | SY | 800 | $ 68.28 | $ 54624.- |
| 6 | Furnish and install 8-Inch thick Concrete pavement and reinforcement, 6" base course, 12" Subgrade | SY | 2,100 | $ 134.30 | $ 282,030.00 |
| 7 | Concrete Drainage Gutter | LF | 400 | $ 40.24 | $ 16,096.00 |
| 8 | Concrete Retaining Wall and Steel Rails | LF | 920 | $ 1,200.00 | $ 1,104,000.00 |
| 9 | Entrance Gate | LS | 1 | $ 15,270.00 | $ 15,270.00 |
| 10 | Exit Gate | LS | 1 | $ 3,870.00 | $ 3,870.00 |
| 11 | 6' Chain Link Fence | LF | 870 | $ 32.94 | $ 28,657.80 |
| 12 | Pavement Markings & Striping | LS | 1 | $ 3000.- | $ 3000.- |
| 13 | Schedule 80 Waterline | LF | 720 | $ 63.60 | $ 45,792.00 |
| 14 | SDR 35 Sewerline | LF | 100 | $ 63.60 | $ 6,360.00 |
| 15 | Traffic Signage | EA | 33 | $ 720.- | $ 23760.- |
| 16 | 40'x60' Metal Building | LS | 1 | $ ~~18,000.00~~ 850,000 | $ ~~18,000.00~~ 850,000. |

City of Midland
West and North Citizens' Collection Station

**West Site**

| Item No. | Description | Unit | Estimated Quantity | Proposal Unit Price | Proposal Amount |
|---|---|---|---|---|---|
| 17 | Electrical Site Work | LS | 1 | $ 174,298.00 | $ 174,298.00 |
| 18 | Septic Tank | LS | 1 | $ 53,651.00 | $ 53,651.00 |
| 19 | Water Well | LS | 1 | $ 18,000 | $ 18,000.00 |
| | | | | | |
| | | | | Total: | $ 3,026,672.20 |

**North Site**

| Item No. | Description | Unit | Estimated Quantity | Proposal Unit Price | Proposal Amount |
|---|---|---|---|---|---|
| 20 | Mobilization (5% Maximum) | LS | 1 | $ 45,000.00 | $ 45,000.00 |
| 21 | Erosion Control | LS | 1 | $ 5,000.00 | $ 5,000.00 |
| 22 | Excavation | CY | 4,400 | $ 7.80 | $ 34,320.00 |
| 23 | Embankment (fill) | CY | 3,600 | $ 11.10 | $ 39,960.00 |
| 24 | Furnish and install 3-inch thick Type "B " HMAC, 9" base course, 12" Subgrade | SY | 800 | $ 68.28 | $ 54,624.- |
| 25 | Furnish and install 8-Inch thick Concrete pavement and reinforcement, 6" base course, 12" Subgrade | SY | 2,400 | $ 134.20 | $ 322,080.00 |
| 26 | Concrete Drainage Gutter | LF | 400 | $ 40.24 | $ 16,096.00 |
| 27 | Concrete Retaining Wall and Steel Rails | LF | 920 | $ 1,200.00 | $ 1,104,000.00 |
| 28 | Entrance Gate | LS | 1 | $ 15,270.00 | $ 15,270.00 |
| 29 | Exit Gate | LS | 1 | $ 3,870.00 | $ 3,870.00 |
| 30 | 6' Chain Link Fence | LF | 1,700 | $ 32.52 | $ 55,284.00 |
| 31 | Pavement Markings & Striping | LS | 1 | $ 3000.- | $ 3000.- |
| 32 | Schedule 80 Waterline | LF | 1,100 | $ 63.60 | $ 69,960.00 |
| 33 | SDR 35 Sewerline | LF | 110 | $ 63.60 | $ 6,996.00 |
| 34 | Traffic Signage | EA | 33 | $ 720.- | $ 23,760.- |
| 35 | 40'x60' Metal Building | LS | 1 | $ 850,000.- | $ 850,000.- |
| 36 | Electrical Site Work | LS | 1 | $ 163,450.00 | $ 163,450.00 |
| 37 | Septic Tank | LS | 1 | $ 96,608.40 | $ 96,608.40 |
| 38 | Landscape and Irrigation | LS | 1 | $ 53,460.00 | $ 53,460.00 |
| 39 | Entrance Road | ~~SY~~ SF | 58,000 | $ ~~3.54~~ 7.46 | $ ~~205,320.00~~ 432,680.- |
| | | | | | |
| | | | | Total: | $ 3,377,434.- |

(**Note:** All amounts shall be shown in both Proposal unit price and Proposal amount. In case of discrepancy between the unit price and the amount, unit price multiplied by quantity will govern. For alternates, check whether it is an add, deduct, or no change.)

The undersigned acknowledges receipt of 5 addenda to the Drawings and Project Manual as follows:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| No. | 1 | Date | 07/18/2023 | No. | 3 | Date | 08/07/2023 | No. 5 | Date 08/14/2023 |
| No. | 2 | Date | 07/31/2023 | No. | 4 | Date | 08/08/2023 | No. | Date |

(The Proposer is to fill in I.D. Number and date of each thereby acknowledging receipt of Addenda).
If awarded the contract, the undersigned agrees to commence work under this contract on or before a date to be specified in Written Notice to Proceed, but not later than October 02, 2023.

Proposer agrees to pay the Owner $250.00 per day, as liquidated damages, for each day the substantial completion of this Project extends beyond the stipulated substantial completion date.

If notified of the acceptance of this bid within 30 days of the time set for the opening of proposals, Proposer agrees within 10 days of notification, to execute a contract in the form of the on the Owner provided form for the above Work, for the above stated compensation.

PROPOSAL SECURITY, as defined in the Request For Proposals and Instructions to Proposers, which the Undersigned agrees to disposition of, is attached to this Proposal.

Upon acceptance of this Proposal by Owner, Contractor shall furnish, at the time of the signing of the contract, a PERFORMANCE BOND AND LABOR/MATERIAL PAYMENT BOND, in the amount of 100 percent of the Contract Price. Surety shall meet requirements specified in the Owner/Contractor Agreement.

It is understood that the Owner reserves the right to accept or reject any and all Proposals and to waive all formalities in accordance with State law.

City of Midland
West and North Citizens' Collection Station

ATTACHMENTS

In accordance with Instructions to Proposers, complete the attached forms and submit with the Proposal Form.

Respectfully Submitted,

By: _____ Michael Iaquaniello - Onyx General Contractors, LLC.

Title: Vice President

Business Address with Zip Code

Onyx General Contractors, LLC

1010 S. FM 1788

Midland, Texas 79706

(SEAL: If Proposal is by Corporation)

Telephone Number with Area Code 432-561-8900

Fill in the applicable information:

A Corporation, chartered in the State of Texas.

Authorized to do business in the State of Texas.

A Partnership, composed of _____, and

_____ and _____.

An Individual operating under the name of _____

_____.

Corporate Seal:

END PROPOSAL FORM

## DOCUMENT 00 43 00 - PROCUREMENT FORM SUPPLEMENTS

To: City of Midland

Project: West and North Citizens' Collection Stations

Date: 08/16/2023

Submitted by: Michael Iaquaniello - Onyx General Contractors, LLC.
(full name)

(full address) 1010 S. FM 1788

Midland, Texas 79706

In accordance with Instructions to Proposers and Proposal Form, we include the following Appendices listed below. The information provided shall be considered an integral part of the Proposal Form. The following Appendices are attached to this document:

Appendix A - List of Subcontractors: Include names of all Subcontractors and portions of the Work each Subcontractor will perform.

Appendix B - Resident Bidder Certification.

PROPOSAL FORM SUPPLEMENTS SIGNATURES

The Corporate Seal of

.....
(Proposer - print the full name of your firm)

was hereunto affixed in the presence of:

.....
(Authorized signing officer Title)

(Seal)

.....
(Authorized signing officer Title)

(Seal)

APPENDIX A - LIST OF SUBCONTRACTORS AND MAJOR MATERIAL SUPPLIERS

Herewith is the list of subcontractors and major material suppliers referenced in the proposal submitted by:

Proposer) Onyx General Contractors, LLC.

To (Owner) City of Midland

Dated 08/16/2023 and which is an integral part of the Proposal Form.

The following work will be performed (or provided) by subcontractors and coordinated by us:

| WORK SUBJECT/MATERIAL SUPPLIER | NAME |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

APPENDIX B - RESIDENT BIDDER CERTIFICATION

**RESIDENT BIDDER CERTIFICATION**

In order for the proposal to be considered, the following information must be provided. **Failure to complete may result in rejection of the proposal:**

As defined by Texas Government Code Section 2252.01 et seq., a "nonresident bidder" means a bidder whose principal place of business is not in Texas but excludes a contractor whose ultimate parent company or majority owner has its principal place of business in Texas.

I certify that my company is a "resident bidder":

Signature: _____ Date: 08/16/2023

If you qualify as a "nonresident bidder," you must furnish the following information:
What is your resident state? (The state your principal place of business is located.)

City:_____ State:_____ Zip:_____

Company Name:_____ Address:_____

(A) Does your "residence state" require bidders whose principal place of business is in Texas to underbid bidders whose residence state is in the same as yours by a prescribed amount or percentage to receive a comparable contract? "Residence state" means the state in which the principal place of business is located. YES_____ NO_____

(B) What is the amount or percentage? _____%

I certify that the above information is correct.

_____

Typed Name/Position Company Name

END OF DOCUMENT

# IMPORTANT NOTICE

## Conflict Of Interest Reporting Requirements

Compliance with LOCAL GOVERNMENT CODE TITLE 5. MATTERS AFFECTING PUBLIC OFFICERS AND EMPLOYEES SUBTITLE C. MATTERS AFFECTING PUBLIC OFFICERS AND EMPLOYEES OF MORE THAN ONE TYPE OF LOCAL GOVERNMENT CHAPTER 176. DISCLOSURE OF CERTAIN RELATIONSHIPS WITH LOCAL GOVERNMENT OFFICERS; PROVIDING PUBLIC ACCESS TO CERTAIN INFORMATION.

**Form CIQ:** This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session. This questionnaire shall be filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a). By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code. A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

Bidders are responsible for filing Conflict of Interest form "CIQ" in accordance with the above referenced statute. Failure to do so is a class C Misdemeanor. Contracts or Purchase Orders awarded to a vendor that has violated this law is subject to termination at such time that the violation is discovered with no recourse to the City of Midland. The bidder will be subsequently removed from the bidders list for a minimum of one year.

When there is no known conflict of interest as defined by the statute, it is not necessary to file/submit the Form CIQ. The form must be submitted if a conflict is subsequently discovered.

By submitting a response to this request, vendor represents that it complies with the requirements of Chapter 176 of the Texas Local Government Code.

For a current list of the local government officers go to: http://www.midlandtexas.gov/

Upon completion of the form, sign and submit with bid or mail to:

City of Midland
Attn: City Secretary
PO Box 1152
Midland, Texas 79702

# CONFLICT OF INTEREST QUESTIONNAIRE

**FORM CIQ**

**For vendor doing business with local governmental entity**

**This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.**

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

**OFFICE USE ONLY**

Date Received

**1** **Name of vendor who has a business relationship with local governmental entity.**

**2** ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

**3** **Name of local government officer about whom the information is being disclosed.**

_____

Name of Officer

**4** **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

**5** **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

**6** ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

**7**

~~PACKET~~ 7-127

Signature of vendor doing business with the governmental entity

~~September 12, 2023~~

Date

## CONFLICT OF INTEREST QUESTIONNAIRE
## For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

**Local Government Code § 176.001(1-a):** "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;

(B) a transaction conducted at a price and subject to terms available to the public; or

(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

**Local Government Code § 176.003(a)(2)(A) and (B):**

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes awarethat:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with thevendor.

**Local Government Code § 176.006(a) and (a-1)**

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity;or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

OF

## Consideration of Location of Bidder's Principal Place of Business
## For Bids of $50,000 up to $100,000 for Services and $500,000 for Commodities
## Affidavit of Eligibility

Pursuant to Texas Local Government Code 271.9051, in purchasing real property, personal property that is not affixed to real property, or services, if the City receives one or more bids from a bidder whose principal place of business is in the City of Midland and whose bid is within five percent (5%) of the lowest bid price received by the City from a bidder who is not a resident of the City of Midland, the City may enter into a contract with:

(1) the lowest bidder; or

(2) the bidder whose principal place of business is in the City of Midland if the City Council determines, in writing, that the local bidder offers the City the best combination of contract price and additional economic development opportunities for the City of Midland created by the contract award, including the employment of residents of the City of Midland and increased tax revenues to the City of Midland.

In order to receive consideration, bidders must submit this affidavit to:

Erika Martinez
Purchasing Manager
City of Midland
300 N. Loraine St.,
PO BOX 1152
Midland, TX 79702-1152

*Complete all areas below. Incomplete affidavits may be rejected.*

Local Business Name: ONYX GENERAL CONTRACTORS, LLC

Local Address (must be within the City limits): 1010 S. FM 1788 Midland, Texas 79706

1. Is the above address the principal place of business for the business named above? ☒ Yes ☐ No
2. How many residents of the City of Midland are employed at the above business location? 60+
3. Year your business was established in the City of Midland: 2000
4. If you collect sales tax for ANY class of customer, provide the following Reseller information:

   Reseller Permit Number: _____

   Company Name and Address (as it appears on permit):
   ONYX GENERAL CONTRACTORS, LLC
   PO Box 60547
   Midland, Texas 79711
5. Does your business have more than one office in the State of Texas? ☐ Yes ☒ No
   If Yes, identify the office location considered as the point-of sale for the purpose of sales tax calculation:

   _____

   _____
6. Was the local business required to pay business and/or real property tax for the most recent tax year?

   ☒ Yes ☐ No

   If Yes, did the local business pay any of this tax to the City of Midland? ☒ Yes ☐ No

Under penalty of perjury, the undersigned states that the foregoing statements are true and correct. It is further acknowledged that any person, firm, corporation or entity intentionally submitting false information to the City in an attempt to qualify for eligibility shall be prohibited from bidding on City of Midland products and services for a period of one (1) year.

Authorized Signature: _____ Date: 08/16/2023

Printed Name and Title: Michael Iaquaniello - Vice President

Onyx Contractors
P.O. Box 60547
Midland, Texas 79711
Phone: 432-561-8900
Fax: 432-561-8644
www.onyxcontractors.com

**City of Midland – West and North Citizens Collection Stations**

**Onyx General Contractors**

**Project's Key Personnel.**

**Project Manager:** Andrew Terry – Please see attached resume.

**Superintendent:** Gilbert Priego – Please see attached resume.

**Safety Manager:** Ibis Ley – Please see attached resume.

**Quality Manager:** John Darnell – Please see attached resume.

**Past and Current Experience.**

-Please see attached list of completed and current projects.

**Bid Bond**

-Please see attached bond.

**Additional Information**

-Please see attached Certificate of Insurance.

***ANY ADDITONAL INFORMATION CAN BE PROVIDED IF REQUIRED.**

# Andrew Terry, P.E.

5301 San Antonio Ave., Midland, Texas 79707, 325-450-1896 andrewterry11@gmail.com

## EDUCATION

Texas Tech University, Lubbock, Texas — Dec. 2014

- Master of Science in Civil Engineering
- Structural Specialization

Angelo State University, San Angelo, Texas — May 2012

- Bachelor of Science – Applied Physics
- Minor - Mathematics

## PROFESSIONAL ENGINEER

- Licensed professional engineer in the State of Texas

## WORK EXPERIENCE

Onyx Contractors – Project Manager/Engineer (Midland, TX) — June 2018 - Present

- Manage projects from start to finish including but not limited to: subcontracts, change orders, submittals, RFI's, etc
- Conversion of accepted proposals into properly completed jobs, according to specifications, within budget, and on time.
- Assist with cost estimating and quantity take-off

HMT Engineering & Surveying – E.I.T (New Braunfels, TX) — August 2017 – May 2018

- Land development engineering: residential subdivisions & commercial developments
- Detention/retention pond design, water quality design, drainage channel design, culvert design, drainage studies, municipal water/sewer design plans and cost estimating, road/paving design plans and cost estimating, bid documents and specifications

West Texas Engineering – E.I.T. (Lubbock, TX) — October 2014 – July 2017

- Land development engineering: commercial, multi-family residential
- Site plans, grading plans, site utility design, detention/retention pond design, municipal water/sewer plans and cost estimating, paving plans and cost estimating, drainage studies, traffic reports and control plans, storm water pollution prevention, FEMA floodplain determination, site investigation reports, permitting, construction inspection reports

Green Sand and Gravel (San Angelo, TX) — Sept. 2011 – Aug. 2014

- Educating customers on what aggregate types work best for various projects
- Job scheduling and cost estimating
- Volume calculations (e.g. house pads, roads, fill material)

## SKILLS

- Experience with programs such as AutoCAD Civil 3D, HEC-RAS, Planswift, and Microsoft Office
- Sufficient mathematical skills (e.g. Calculus, Differential Equations, Linear Algebra)
- Knowledge of engineering theories, principles, and specifications
- Project management – construction scheduling, good communication skills, estimating
- Knowledge of construction practices

# GILBERT PRIEGO

702 Devonian Dr

Midland, TX 79703

432-694-5065

## EXPERIENCE

**January 2014 – Present** **Civil Superintendent** **Onyx Contractors**

- Manage and coordinate subcontractors and employees

Jobs completed include, but are not limited to the following:

- City of Midland Landfill Pit 4, Phase 1B
- City of Midland Medians for Quiet Zone
- City of Midland Cart Paths – Hogan Park
- City of Midland Landfill Pit 2
- City of Midland Citizens collection Center – Fast Track Project
- Construction of Ward Street Bridge
- New facility for CasedHole Solutions
- Warren Cat of Odessa New Engine shop

**1997-2008** **Laredo Paving Inc., Big Spring, TX**

Managed and gave oversight to a crew of 20 employees, dealing effectively with individuals from various cultures and ethnic backgrounds.

Designed, developed, implemented and organized safety and orientated meetings for the last 11 years in the areas of company policies, procedures, techniques, equipment and supplies related to construction and safety operation.

Supervised operational effectiveness by structuring clean and safe environments that met with OSHA and MSHA standards.

Gave instruction on how to keep work areas, yards and storage facilities within the highest safety specifications for the good of all employees and departments.

Coordinated weekly, quarterly and annual sectional meetings and gatherings for the evaluation, programming, scheduling and conflict resolution of any safety task that included and was not limited to substance abuse and risk management.

Taking action in any situation that required discipline or correction that was required for keeping employees and company safe.

Continually instructed employees on the procedures for handling and resolving all work practices, to insure that everything was done according to company specifications.

Gave direct input to the development, construction, execution, and cost effectiveness of company projects with a focus on completion of jobs that had no safety deficiencies or accidents.

Taking into consideration proactive factors such as budget, timing and personal to complete all jobs within a timely matter.

## EDUCATION

Bowie High School, El Paso, Texas

Class of 1985

Received instruction and new regulation updates from safey conferences in different cities of the United States, such as the following:

- MSHA Conference in Oklahoma City, Oklahoma
- Joseph A. Holmes Conference in San Antonio, Texas
- MSHA Conference in Carlsbad, New Mexico
- 2007 South Central Joint Mine Health and Safety Conference in Fort Worth, Texas

## REFERENCES

| | |
|---|---|
| Randy Haines – MSHA Inspector – Carlsbad, NM | 505-887-6074 |
| Joe D. Nicholas – MSHA Inspector – Carlsbad, NM | 505-887-6074 |
| Ramon Diaz – Engineering Safety Consultants – San Antonio, TX | 806-548-3310 |
| Michael Gutierrez – Key Energy Services, Midland, TX | 432-296-0694 |

# JOHN DARNELL

63 Lafayette Place

Midland, TX 79705

432-638-5618

john@onyxcontractors.com


## EXPERIENCE

**October 2004 – Present** **Operations Manager** **Onyx Contractors, Midland, TX**

- Estimate and put bids together for all General Contracting work up to $5,000,000
- Work with clients for design builds
- Coordinate and run meetings between architects and project owner
- Set schedules from beginning to end for all projects
- Coordinate all subcontracts for work being done on projects

Jobs include but are not limited to the following

- Supervision of concrete on City of Midland 2007 Drainage Project
- City of Midland Lamesa Street SBG Project
- City of Midland Fuel Station
- 3000 SF Office Building
- Community National Bank located in Stanton, TX for Ryan Lovell, VP

**Jan 2002 - Oct 2004** **Owner and President** **Mold Removal of Texas (MRT)**

- Estimating projects
- Ordering materials and equipment
- Payroll
- Invoicing
- QC on the projects

**March 2000 – December 2001** **OSP Inspector** **Flur Fiber**

- Oversee of general contractors
- Daily reports
- Environmental inspection and reports

**July 1985 – February 2000** **Project Superintend** **Big D Equipment Co.**

1994-2000 Project Superintend

- Installing materials to plans
- Making red lines changes to the drawings
- Field testing
- Reading the lab testing
- Increasing the production rate

1990-1994 Manager Bryan, Texas

- Sale of project
- Invoicing
- Payroll
- Order materials and inventory
- Accounts payable
- Safety meetings

1987-1990 Manager Elk City, OK

- Sale of project
- Invoicing
- Payroll
- Order materials and inventory
- Accounts payable
- Safety meetings

1985-1987 Supervisor

- Completion of projects on time
- Tracking of materials
- Guiding of man power
- Quintiles for billing

## EDUCATION

Robert E. Lee High School

Class of 1984

## REFERENCES

| | | |
|---|---|---|
| Gary L Saunders | Transportation Manager City of Midland | 432-685-7280 |
| Brent Sharp | DCP West Texas Manager | 432-556-5774 |
| Jim Rose | 432-686-0086 | |

Taking action in any situation that required discipline or correction that was required for keeping employees and company safe.

Continually instructed employees on the procedures for handling and resolving all work practices, to insure that everything was done according to company specifications.

Gave direct input to the development, construction, execution, and cost effectiveness of company projects with a focus on completion of jobs that had no safety deficiencies or accidents.

Taking into consideration proactive factors such as budget, timing and personal to complete all jobs within a timely matter.

## EDUCATION

Bowie High School, El Paso, Texas

Class of 1985

Received instruction and new regulation updates from safey conferences in different cities of the United States, such as the following:

- MSHA Conference in Oklahoma City, Oklahoma
- Joseph A. Holmes Conference in San Antonio, Texas
- MSHA Conference in Carlsbad, New Mexico
- 2007 South Central Joint Mine Health and Safety Conference in Fort Worth, Texas

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| Joe D. Nicholas – MSHA Inspector – Carlsbad, NM | 505-887-6074 |
| Ramon Diaz – Engineering Safety Consultants – San Antonio, TX | 806-548-3310 |
| Michael Gutierrez – Key Energy Services, Midland, TX | 432-296-0694 |



**Ibis Ley**
3204 Pleasant
Odessa, TX 79764
(432) 978-9336
Ibisley75@gmail.com

## SKILL SUMMARY

- Committed to achieving outstanding results by paying attention to detail, adhering to all safety standards, safety training, compliance with laws, regulations, company policies and meeting deadlines.
- Outstanding work ethics with superior ability to plan, organize motivate for precise and timely execution of tasks.
- Ability to train crew members to work safely and meet work requirements.
- Knowledgeable in Microsoft Word, Excel, PPT, and other programs and.
- Ability to effectively work well and alongside all peers, as well as client counterparts.
- Experience in supervising major construction projects, plant, and electrical shutdowns.
- Fluent Spanish/English (read and write)

## EXPERIENCE

**2020 - 2021 - Liberty Safety Training – Odessa, TX - (HSE Training Manager/Consultant)**

- **Responsible for delivering top quality training programs to internal and external clients as well s being a resource for education with regards to general safety matters, evaluating programs, and case management/incident investigation.**
- **Conducting major construction audits and Safety meetings.**
- **Consulting and overseeing subcontractors on new construction projects, plant shutdowns and confines space pipeline tie-ins.**

**2018 – 2020 – PTW Energy Services – Midland - (Safety Lead Advisor)**

- **Support the HSE Manager and team with planning, coordinating, and implementing of effective HSE policies, guidelines, and procedures to ensure that the department objectives are met.**
- **Provide support to Project and Operation team in all aspects of safety, occupational health, safety, and environmental issues.**
- **Conduct Audits during new construction, maintenance, and on-going projects.**
- **Conduct major monthly meetings.**
- **Train all employees according to rules and regulations (Electrical Safety, NPFA 70E, Lock Out Tag Out, Confined Space, Excavation, PEC Safeland)**

**2017 - 2018 – ParPal Construction – Midland, TX - (Safety Manager)**

- **Responsible for reducing hazards and ensuring a safe working environment in a variety of industries.**
- **Conduct audits of work practices and processes for potential safety hazards and reports findings and recommendations to management.**
- **Develop and implement plans and objectives for the department in an effective and innovative fashion.**
- **Oversee and coordinate daily operations.**
- **Maintain compliance with external regulations and internal policies.**
- **Assess and report progress in meeting department objectives.**
- **See to department staffing needs (interviewing, hiring, new hire and ongoing training, annual evaluations, etc.)**
- **Participate in budget development and monitoring of expenses.**
- **Oversee events and conferences as needed.**

2015– 2017 Liberty Safety Training – Odessa, TX - (Safety Training Manager)

- **Powered Industrial Equipment Trainer (Forklifts, Aerial Lifts)**
- **Earth Moving Equipment Trainer (Compact Excavator, Mini Excavator, Backhoe Loader, Front End Loader, Skid Steer)**
- **PEC SAFELAND Instructor (Basic Orientation, H2S Clear, Basic Pipeline, MSTQ, Gold Shovel, OSHA 10/30**
- **Confined Space, Excavation, Rigger & Hand Signal Person, Trencher, Fire Watch, CPR**

2015 (Jan – August) Crossfire LLC - Midland, TX – (Area Manager)

- **Energy Transfer – Sweetie Peck - Odessa, TX (24" & 8" HDPE Line – Completed)**
- **Chevron – CMC Pipeline - Midland, TX (9 miles of 18" Steel - Completed)**
- **OXY Permian Basin Area – Midland, TX (Roustabout Services - Ongoing)**
- **Kinder Morgan – Nuevo Plant - Orla, TX (6" & 4" HDPE Line – Completed)**
  - Overseeing and directing construction projects from conception to completion.
  - Reviewing the project in-depth to schedule deliverables and estimate costs.
  - Overseeing all onsite and offsite constructions to monitor compliance with building and safety regulations.

2013 – 2015 Saulsbury Industries - Odessa, TX – (HSE Manager)

- **DCP - Zia II Plant, Hobbs, NM (200 Million Cryo Gas Plant)**
- **Regency - MI Vida, Barstow, TX (200 Million Cryo Gas Plant)**
- **EL Paso Electric - Power Plant / El Paso, TX (Power Plant – Completed)**
- **CLECO - Power Plant, Mansfield, LA (Power Plant Shut Down)**
- **Regency - Dubberly, LA (Slug Catcher – Completed)**
- **LINN Energy - Compressor Station, Ulysses, KS (Compressor Stations)**
- **Atlas Teak II - Tuleta, TX (200 Million Cryo Gas Plant)**
  - Manage multiple projects and supervise a Crew of Site Safety Specialists (4).
  - Develop policies, procedures, safety alerts, safe work practices and translations.
  - Provide appropriate safety and health, accident prevention, and investigation training to supervisors and more than 350 + company employees.
  - Conduct quarterly audit inspections to assure safe and healthful conditions for workers.
  - Manage incident investigation (Tap Root) and develop measures to prevent recurrences.
  - Write, approve, and oversee JSA's (Critical Lifts, Critical Hydro tests, Tie ins –Electrical, Mechanical, Hot taps).
  - Create Emergency Evacuation Plans, SPCC Plans, and Site Safety Plans.
  - Report and investigate all incident reports (Initial reports, final reports & Root Cause Analyses) in a timely manner, complete and accurate manner.
- **No recordables at these facilities.**

2012 – 2013 Saulsbury Industries - Odessa, TX – (HSE Supervisor)

- **SI Shop Fabrication Area - Odessa, TX (Construction)**
- **Centurion Pipeline - Childress, TX (I&E)**
- **Marathon Oil - Kennedy, TX (I&E – Construction)**
- **BOSTCO/Kinder Morgan, La Porte, TX (I&E)**
- **Tessenderlo Kerly (TK) - Carlin, NV (Construction)**
- **Salt River Project - St. John's, AZ (I&E)**
  - Manage multiple projects and supervise site safety personnel.
  - Provide appropriate safety and health, accident prevention, and investigation training to supervisors and more than 200+ company employees.
  - Assist management in the annual inspection of workplaces to assure safe and healthful conditions for workers.
  - Assist management and supervisors in investigating accidents and developing measures to prevent recurrences.
  - Support Safety Management Team by recording all accident reports in a timely, complete, and accurate manner.
- **No recordables at these facilities**

**2009 – 2012 Saulsbury Industries - Odessa, TX – (HSE Lead)**

- **TEAK Midstream Project - Tutela, TX (I&E)**
- **Sandridge Plant - Wellman, TX (I&E)**
- **South Cross Energy - Woodsboro, TX (I&E)**
- **OXY – Bennett Ranch - Denver City, TX (I&E)**
- **OXY – Salt Creek Expansion, Post, TX (Construction)**
- **Kinder Morgan Cryo Gas Plant, Snyder, TX (I&E)**
- **Kinder Morgan Sacroc 178 CO2 - Snyder, TX (I&E)**
- **DCP Roberts Ranch - Midland, TX (I&E)**
- **Southern Union Gas - Pecos, TX (I&E)**

  - Coordinate and conduct safety meetings for 200+ company employees and sub-contractors.
  - Perform site inspections to ensure compliance with company's safety, health, and environmental system as well as Health Act and Workplace Safety and Environmental Public Health Regulations.
  - Conduct investigations in the event of an accident, near miss, dangerous occurrence.
  - Assist team members identify risk and conduct risk assessments.
  - Maintain HSE records and incident reporting compliance.
  - Conduct daily site safety audits/inspections.

- **No recordables at these facilities**

**May 2009– December 2009 Ref-Chem - Odessa, TX – (Pipefitter/Foreman)**

**Rex-Tac Polymer Project**

- Ensure pipefitters performed precise new connections.
- Accountable for the performance of Pipefitters.
- Installation of New Chemical Tanks.
- Repair gas process exchangers, maintenance valves and tanks per safety, company, and OSHA guidelines.
- Responsible for the repairs of gas process exchangers, maintenance valves and tanks per OSHA and company standards.

**2000 – 2009 Jacobs Field Services NA, Inc. - Odessa, TX – (Pipefitter/Boilermaker Foreman)**

**Flint Hills Polymers PSM project working in all plant units and systems.**

- Ensure pipefitters, boilermakers, and riggers maintained all pipelines.
- Performed precise new connections, line pressure maintenance, and leak repairs.
- PM's on compressors, hydraulic and pneumatic controls, pumps, piping, chemical feeders, injection systems and minor electrical repairs to provide client with timely response and ensure assigned work problems are resolved in a timely matter to prevent interruption to client production schedule.
- Manage material and labor planning.

**1997 – 2000 Ref-Chem, Odessa, TX – (Pipefitter/Boilermaker Master Mechanic)**

- Maintenance and repairs of polymer facility pipelines, valves, etc. per safety, company, and OSHA requirements.
- PM's on compressors, hydraulic and pneumatic controls, pumps, piping, chemical feeders, injection systems and minor electrical repairs to provide client with timely response and ensure assigned work problems are resolved in a timely matter to prevent interruption to client production schedule.
- Performed precise new connections, line pressure maintenance, and leak repairs.

## EDUCATION

| | | |
|---|---|---|
| **Bachelors Degree OSHM** (Occupational Safety & Health Management) | Odessa College | December 2022 |
| **Associates Degree OSHT** (Occupational Safety Health Technology) | Odessa College | December 2010 |
| **OSHT Certificate** | Odessa College | December 2010 |
| **Construction CSHO** (Certified Safety & Health Official) | Texas A&M (TEEX) | May 2014 |
| **General Industry CSHO** (Certified Safety & Health Official) | Texas A&M (TEEX) | September 2014 |
| **OSHA 510** | Texas A&M (TEEX) | September 2012 |
| **OSHA 511** | Texas A&M (TEEX) | September 2010 |
| **OSHA 503** | Texas A&M (TEEX) | October 2018 |
| **OSHA 501** | Texas A&M (TEEX) | September 2014 |

## CERTIFICATIONS AND SPECIAL QUALIFICATIONS

- **CDL (Class A) Driver**
  (Endorsements: Tankers, Hazmat, Doubles & Triples)
- **PEC SAFELAND INSTRUCTOR**
  BASIC Orientation, H2S Clear, Basic Pipeline, Gold Shovel, MSTQ, OSHA 10/30
- **OSHA 10/30 Instructor**
- **CPR/First Aid/AED/BBP Instructor**
- **Earth Moving Equipment Instructor:**
  Excavators, Backhoes, Front-End Loaders, Skid-Steer,Blade, Dozer, Roller Compactor
- **Mobile Elevating Work Platforms**
  Forklifts, Manlifts, Scissor Lifts
- **Confined Space Instructor**
- **Excavation Instructor**
- **Trencher Instructor**
- **Hand Signal-Rigger Instructor** (Crane Institute of America)
- **Bilingual (Read/Write)**
- **TWIC Card**
- **Class A CDL – (Hazmat-Tankers Endorsements)**
- **Pursuing Bachelors Safety Degree** (Odessa College)

## REFERENCES

**Scott St. Louis**
Electrical Operations Manager
Onyx Contractors (Midland, TX)
sstlouis@onyxcontractors.com
**432-230-1833**

**Eddie Gonzales**
Corporate HSE Director
JMTJ Construction
eddie@jmtjconstruction.com
**(806) 341-8112**

**Antonio Leyva**
Construction Manager
Saulsbury Industries (Odessa, TX)
**432-269-5553**

**Hector Sanchez**
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Mitchel Energy (Lorena, TX)
hsanchez@mitchellenergy.net
**432-238-6465**

**Rudy Folds**
HSE Inspector/Consultant
Cleveland Integrity Services
**325-260-3935**

**Alan Armnesto**
Texas Area Manager
Specialized Automation Services, LLC
(Midland, TX)
**432-638-4163**

**ONYX CONTRACTORS**
**P. O. Box 60547**
**Midland, TX 79711**

**LIST OF PROJECTS**

| PROJECT | PROJECT DESCRIPTION | OWNER, AGENCY/ENGINEER | YEAR BUILT | CONTRACT PRICE | CONTACT PERSON | PHONE |
|---|---|---|---|---|---|---|
| City of Amarillo Landfill | Excavate Landfill Cell 4 Area 4 | City of Amarillo, Texas/City Engineering Department | 2000 | $535,000.00 | Murray Hudson | 806-378-9336 |
| WesTex Disposal | Excavate Disposal Ponds | WesTex Disposal/In-House | 2000 | $41,500.00 | Cell Prears | 915-687-6206 |
| Evaporation Pond | Excavate Pond | Central & South West Services, Inc./In-House | 2000 | $70,788.00 | Chris Bissett | 915-674-7235 |
| City of Plainview Landfill | Excavate Landfill Sector 1D | City of Plainview, Texas/Parkhill, Smith & Cooper | 2001 | $718,375.00 | Holly Holder | 806-473-2200 |
| City of Brownwood Landfill | Cell 9 Construction Landfill | City of Brownwood, Texas/Hibbs & Todd, Inc. | 2001 | $681,783.00 | Luci English | 915-698-4330 |
| Excel Corporation | Construction of Wastewater Treatment Lagoon #4 | Excel Corporation/EA Engineering, Science Technology | 2001 | $137,783.00 | Chuck Place | 972-484-1420 |
| City of Kingsville Landfill | Construction of MSW Landfill Sector 2 Type 1 & Sector 1 Type 4 | City of Kingsville, Texas/RJR Engineering | 2001 | $1,752,994.00 | J. Roy Murray | 281-397-6747 |
| City of Brownsville | Construction of MSW Landfill Disposal Area Cell 2 - Area 6 | City of Brownsville, Texas/RJR Engineering | 2002 | $732,442.00 | J. Roy Murray | 281-397-6747 |
| City of Lubbock Landfill | Lubbock Landfill - Vail VI Expansion | City of Lubbock, Texas/Parkhill, Smith & Cooper | 2002 | $336,770.00 | Holly Holder | 806-473-2200 |
| City of Lubbock Landfill | Citizen Collection/Transfer Station at Caliche Canyon Landfill | City of Lubbock, Texas/Parkhill, Smith & Cooper | 2002 | $235,073.00 | Holly Holder | 806-473-2200 |
| City of Midland | William - Sam Memorial Skate Park | City of Midland, Texas/Parkhill, Smith & Cooper | 2002 | $389,000.00 | Gary Harris | 915-520-2110 |
| Garrett Brown Park | Concrete Sidewalks and Walking Trail | City of Midland, Texas/In-House | 2003 | $15,345.00 | Glen Butler | 432-685-7365 |
| WesTex Disposal | Excavate Disposal Ponds | WesTex Disposal/In-House | 2004 | $55,000.00 | Carl | 432-425-7371 |
| Midland College Parking Lot | Sidewalks and Parking Lot Concrete Work | Midland College | 2005 | $43,476.00 | Ken Riley | 432-685-4569 |
| MLK Community Center | Additions and Renovations Concrete Work | City of Midland,Texas/Mid-Tex | 2005 | $85,545.00 | Alan White | 432-697-2282 |
| Odessa High School | Additions and Renovations Concrete Work | Ector County School District/J.C. Roberts | 2005 | $53,000.00 | Jeff Roberts | 432-580-8161 |
| Greenwood High School | Additions and Renovations Concrete Work | Greenwood School District/Mid-Tex of Midland | 2005 | $116,000.00 | Bill Baker | 432-697-2282 |
| Greenwood High School | Softball and Baseball Park | Greenwood School District/Mid-Tex of Midland | 2005 | $136,000.00 | Les Williams | 432-638-4089 |
| Odessa Country Club | Excavate Golf Course | Odessa Country Club/Mid American Golf | 2005 | $98,000.00 | Tim O'Brien | 816-524-0010 |
| City of Andrews | Andrews Parks Department Sidewalks | City of Andrews, Texas/Parks & Wildlife Department | 2005 | $45,000.00 | Mitch Grant | 432-523-4820 |
| Champion Tech | 90'X80' Concrete Slab | Champion Tech/In-House | 2006 | $35,526.00 | Terry McCrury | 432-363-9105 |
| Midland Classical Academy | Concrete Slabs-Classroom, Sidewalk & Ramp | Midland Classical Academy/Campbell Construction | 2006 | $300,000.00 | Thomas Dragsic | 432-682-1552 |
| ChemCentral | Subgrade Preparation, Concrete Paving & Tank Rings | ChemCentral/Planning & Construction | 2006 | $425,000.00 | Steve Ratliff | 505-836-2334 |
| Texas Dept of Transportation | TCEQ Truck Wash Compliance Wash Pad Installation | Texas Dept. of Transportation/In-House | 2006 | $183,150.00 | Christi Foote | 432-332-0501 |
| Washington Group Intl., Inc. | National Enrichment Facility | Washington Group Int'l, Inc./In-House | 2006 | $4,827,860.00 | Jim Blackford | 505-391-5158 |
| City of Midland Landfill | Landfill - Pit 4, Phase 1B | City of Midland/Utilities Department | 2007 | $355,995.56 | Kay Snyder | 432-685-7260 |
| City of Midland | Medians for Quiet Zone | City of Midland | 2007 | $148,664.00 | David Byrd | 432-685-7234 |
| City of Midland | Cart Paths-Hogan Park | City of Midland | 2007 | $166,003.53 | David Byrd | 432-685-7360 |
| Carver School MISD | Sidewalks Concrete Work | City of Midland/PSC | 2008 | $46,997.00 | | 432-684-9377 |
| Fire Station # 3 | Sidewalks and Parking Lot Concrete Work | City of Midland | 2008 | $42,500.00 | | 432-684-9377 |
| Dr. Carrasco Office Building | Slab,Sidewalks, and Curbs | Dr. Carrasco/JSA | 2008 | $78,938.00 | Cruz Castillo | 432-684-9377 |
| Odessa College | Slab and Sidewalks | Odessa College/JSA | 2008 | $26,756.00 | Cruz Castillo | 432-684-9377 |
| Community National Bank | New Bank Building, Stanton, Texas | CNB | 2008 | $242,833.00 | Ryan Lovell | 432-685-8436 |
| Safe Rack | Truck Loading Rack/Slab Concrete Work | Champion Chemical | 2008 | $14,500.00 | Joe Cumbus | 432-363-9105 |
| Resident Inn Hotel | Slab,Parking Lot, and Curbs | Resident Inn/EBCO | 2008 | $498,665.00 | Charley Benson | 254-697-8516 |
| David Parking Lot | Parking Lot Concrete Work | David Airington | 2008 | $201,900.00 | Ronney Lloyd | 432-967-0248 |
| D.F Ranch | Concrete Bridge, and Curb Concrete Work | Chesapeake Operating | 2008 | $441,630.00 | Mike Taylor | |
| Blue Bell Ice Cream Building | Slab,Loading Dock, Parking Lot, and H/C Ramps Concete Work | Blue Bell Ice Cream/Barbed Cross | 2008 | $208,750.00 | John Dunn | 432-684-9377 |
| PR Ventures | New Office Building/Construction and Concrete Work | Pat Vincent | 2008 | $226,150.00 | Pat Vincent | |
| City of Midland, Texas | Landfill - Pit 2 | City of Midland/Utilities Department | 2009 | $3,727,000.00 | Stuart Purvis | 432-685-7262 |
| City of Odessa, Texas | 2007 Drainage Improvements,East Side Channel Renovations | City of Odessa, Texas | 2009 | $681,775.50 | Mark Moore | 432-335-3227 |
| City of Midland, Texas | New Fueling Facility Project No. 0765-09 | City of Midland, Texas | 2009 | $653,639.00 | Mark Phillips | 432-685-7235 |
| City of Odessa, Texas | Sherwood Park Renovations | City of Odessa, Texas/Parkhill,Smith&Cooper | 2010 | $4,481,462.20 | Steve Patton | 432-335-3227 |
| Greenwood ISD/Greenwood,TX | Paving and Drainage Improvements | Greenwood School District/Parkhill,Smith&Cooper | 2010 | $672,665.92 | Eric West | 432-697-1447 |
| Entertainment Complex | Design Build Entertainment Facility/Indoor Volleyball Complex | Chuck Bane | 2011 | $1,350,000.00 | Chuck Bane | 432-620-5370 |
| Midland College | Administration Renovations Phase I & II | Midland College/Parkhill, Smith & Cooper | 2011 | $1,112,000.00 | Phillip Furgueron | 432-697-1447 |
| City Of Midland | Citizens Collection Center - Fast Track Project | City of Midland / Parkhill, Smith & Cooper | 2011 | $587,000.00 | Holly Holder | 806-473-3500 |
| Chuck Bane | Chuck Bane Fence | Chuck Bane | 2012 | $151,800.00 | Chuck Bane | 432-620-5370 |
| WTG Fuels | WTG Fuels Midland Yard Concrete | WTG Fuels | 2012 | $148,799.00 | | |
| DCP Knott #3 and 4 | Compressor Pads | DCP Midstream | 2012 | $233,150.00 | Pennie Ormsby | 432-620-4105 |
| DCP White Booster | Compressor Pad | DCP Midstream | 2012 | $134,070.00 | Pennie Ormsby | 432-620-4105 |
| Stanton Booster | Compressor Pads | DCP Midstream | 2012 | $283,900.00 | Pennie Ormsby | 432-620-4105 |
| Ward Street Bridge | Construction of Bridge | City of Midland | 2012 | $639,230.00 | David Beard | 432-685-7415 |
| CasedHole Solutions | New Facility | CasedHole Solutions | 2012 | $2,500,000.00 | Mike Hobbs | 325-226-1145 |
| DCP West Credo | Compressor Pad | DCP Midstream | 2012 | $110,390.00 | Pennie Ormsby | 432-620-4105 |
| 14th Street Odessa | Construction of Sidewalks | City of Odessa | 2012 | $144,098.67 | Steven Davis | 432-335-3227 |
| MCH Boss Building Parking Lot | Construction of new parking lot | MCH | 2012 | $180,000.00 | | |
| Hicks and Gist Sidewalks | Construction of new sidewalks | City of Midland | 2012 | $232,000.00 | David Beard | 432-685-7415 |
| MMH Paving Change Orders | Concrete work | Midland Memorial Hospital | 2012 | $195,000.00 | | |
| Ward St. Bridge Change Order (Jail Draw Alley) | | City of Midland | 2012 | $132,000.00 | David Beard | 432-685-7415 |
| Warren CAT Midland | Construction of New Facility | Warren CAT | 2013 | $3,851,156.00 | Anthony Folger | 432-571-4225 |
| DCP West Waddell | Compressor Pad | DCP Midstream | 2012 | $158,620.00 | Pennie Ormsby | 432-620-4105 |
| Warren Cat Odessa | Construction of New Rental Store | Warren CAT | 2013 | $2,800,000.00 | Anthony Folger | 432-571-4225 |
| DCP Paya Booster | Compressor Pad | DCP Midstream | 2013 | $258,000.00 | Pennie Ormsby | 432-620-4105 |
| DCP Turbine Shop Goldsmith | New Turbine Shop | DCP Midstream | 2013 | $1,170,000.00 | Pennie Ormsby | 432-620-4105 |
| DCP Parks Booster | Compressor Pad | DCP Midstream | 2013 | $925,000.00 | Pennie Ormsby | 432-620-4105 |
| Kalico | New Office Space | Kalico | 2013 | $84,000.00 | Ray Elliot | |
| Shell | Various Projects | Shell | 2013 | $150,000.00 | David Deaf | 281-544-4144 |
| Cased Hole Bunker | Constructed a Bunker | CasedHole Solutions | 2013 | $40,000.00 | Mike Hobbs | 325-226-1145 |
| Lafette Place | Construction of New Houses | Onyx | 2013/2014 | $4,500,000.00 | Onyx | 432-561-8900 |
| City of Midland Compass | Various Projects | City of Midland | 2013/2014 | $1,000,000.00 | David Beard | 432-685-7415 |
| Nelson Fireplace | New Fire Place | Jim Nelson | 2013 | $18,000.00 | Jim Nelson | 432-557-8184 |
| Warren CAT Odessa | New Engine Shop | Warren CAT | 2014 | $6,600,000.00 | Anthony Folger | 432-571-4225 |

| | | | | | | |
|---|---|---|---|---|---|---|
| United Production | New Fabrication Facility | United Production | 2014 | $1,300,000.00 | Kevin Bordelon | 337-365-4400 |
| Warren CAT Parking Lot | New Truck Display and Parking Area | Warren CAT | 2014 | $160,000.00 | Anthony Folger | 432-571-4225 |
| ConocoPhillips | Various Projects | ConocoPhillips | 2014 | $5,000,000.00 | Tommy Hosier | 432-556-7653 |
| XTO | Various Projects | XTO | 2014 | $ 1,000,000.00 | Jeff Rains | 432-557-3159 |
| Shell | Various Projects | Shell | 2014 | $1,500,000.00 | Esteban Soliz | 956-740-4798 |
| Apache | Various Projects | Apache | 2014 | $1,500,000.00 | Herald Swint | 575-390-4368 |
| ECISD Data Center | Renovation of New Data Center | Ector County School District | 2015 | $2,479,872.00 | Kellie Wilks | 432-456-8649 |
| Warren Cat Phase One Site | New concrete paved road | Warren CAT | 2015 | $716,301.00 | Anthony Folger | 432-571-4225 |
| Warren Cat Phase Two Site | Site Improvements | Warren CAT | 2015 | $3,190,706.00 | Anthony Folger | 432-571-4225 |
| SAISD Band Hall | Renovations to Band Hall | San Angelo School District | 2015 | $684,293.00 | Kye Frenke | 325-653-2900 |
| American Energy Big Lake | New Field Office | American Energy Partners | 2015 | $1,063,335.00 | Bill Yon | 405-232-9554 |
| City of Midland Landfill | New Scalehouse, Maint Building and Site Improvements Landfill | City of Midland | 2015-2016 | $8,102,230.00 | Morris Williams | 432-685-7278 |
| ConocoPhillips Goldsmith | New Office Building | ConocoPhillips | 2015-2016 | $7,104,760.00 | Joseph Evans | 918-336-3512 |
| Woodson Park | New Soccer fields, walking path, playground, basketball courts | City Of Odessa | 2016 | $1,422,955.00 | Kelly Cook | 432-686-8001 |
| Comanche Park | New Soccer Fields, Parking Lot, Site Improvements | City of Odessa | 2016 | $1,483,048.00 | Jonathan Pruessner | 432-686-8001 |
| Salinas Park | New Soccer Fields, Parking Lot, Site Improvements | City of Odessa | 2016 | $1,130,782.00 | PSC | 432-697-1447 |
| Odessa College | Permian Basin Fab Lab | Odessa College | 2016 | $345,500.00 | JSA | 432-362-6565 |
| Western Manor and Murry Fly | Shade Structures, Walking Trials, Playground Equipment | City of Odessa | 2016 | $589,155.00 | Mak Landscape | 432-203-0003 |
| Stator Park | New Parking Lot, Basketball Court, Dog Park, Playground | City of Odessa | 2016/2017 | $1,379,000.00 | Kimley Horn | 346-888-3887 |
| Conoco Midland Restroom | New ADA Restroom | ConocoPhillips | 2016 | $71,500.00 | Joseph Evans | 918-336-3512 |
| Buckthorn Solar Site | Solar Farm | Lendlease | 2016 | $8,500,000.00 | Jim Lepely | 254-535-0454 |
| City of Midland Misc Concrete | Misc Concrete Work | City of Midland | 2016/2017 | $800,000.00 | Regina Stephenson | 432-685-7233 |
| Buena Vista ISD Gym | Gym Renovation | Buena Vista ISD | 2017 | $140,000.00 | JSA | 432-362-6565 |
| UTPB Student Housing Parking | Light Poles in Parking Lot | UTPB | 2017 | $40,500.00 | Ynes Alderson | 432-552-2705 |
| City of Midland CBDG | City Street Improvements | City of Midland | 2017 | $500,000.00 | Regina Stephenson | 432-685-7233 |
| Noble Energy | Site Development Evaporation ponds | Noble Energy | 2017 | $8,400,000.00 | Robert Zmecks | 713-715-8978 |
| Sprayberry Farm and Plant Rehab | Rehab of Lagoons, Intake structures, sluice gates and cleaning | City of Midland | 2018 | $1,188,529.00 | HDR | 210-841-7807 |
| Sunshine Drycleaners | New Design Build Dry Cleaners | IAQ Realty | 2018 | $820,000.00 | Onyx | 432-561-8900 |
| Luna Wood Angel House | New woman's shelter | West Texas Crisis Center | 2018 | $4,707,712.00 | JSA | 432-362-6565 |
| University Right of Way Clearance | Widening 2 miles of University Street | City of Odessa | 2018 | $2,168,177.00 | City of Odessa | 432-335-3227 |
| Carver Street Roadway | New Detention Ponds and Bridge | City of Midland | 2018 | $2,279,873.00 | City of Midland | 432-685-7233 |
| Basin 349 | New drainage Basins | City Of Midland | 2018/2019 | $943,726.00 | City of Midland | 432-685-7233 |
| Choke Facility | New Dyno building for frac pump testing | Warren CAT | 2018/2019 | $2,500,000.00 | Jeremy Olvis | 432-571-4225 |
| Sherwood Park Community Center | Remodel of Park Community Center | City Of Odessa | 2018 | $495,000.00 | City of Odessa | 432-335-3227 |
| Stator Park Community Center | Remodel of Park Community Center | City Of Odessa | 2018 | $320,000.00 | City of Odessa | 432-335-3227 |
| Sundance West Inc | New Mud Management Facility/Oilfield Waste | Onyx Contractors | 2018/2019 | $8,200,000.00 | Onyx | 432-561-8900 |
| Reeves County Hospital Staff Housing | New Staff Housing | Vandergriff | 2019 | $2,581,915.00 | Reeves Hospital | |
| Midland College Softball Complex | New Team Locker room and indoor batting cage | PSC | 2019 | $989,000.00 | Midland College/PSC | 432-697-1447 |
| COM Cowden Park Traffic Calming Project | Misc Concrete Work | City of Midland | 2019 | $84,506.00 | City of Midland | 432-685-7233 |
| Sewell Auto Tech | New Training Facility | Odessa College | 2018/2019 | $8,850,000.00 | JSA | 432-362-6565 |
| Knighten Industries Building Extension | Metal Building Extension | Onyx Contractors | 2019 | $304,000.00 | Brian Knighten | |
| Pecos Municiple Transfer Station | New Transfer Station | City of Pecos/PSC | 2020 | $1,418,000.00 | City of Pecos | 432-445-2421 |
| Big Spring Landfill Scalehouse/Maintence Bldg | Scalehouse and Maintenance Building | Big Spring /PSC | 2019/2020 | $2,416,050.00 | City of Big Spring | |
| Monahans Parkway Detention Pond "D" | New detention pond, concrete flumes, and storm sewer pipe | Monahans Economic Development Corporation / Maverick | 2020 | $372,067.24 | Monahans Econcomi Dev | 432-943-2062 |
| Monahans Access Roads | Public Roadways including asphalt paving, curb & gutter, utilities | Monahans Economic Development Corporation / Maverick | 2020 | $974,295.01 | Monahans Econcomi Dev | 432-943-2062 |
| FedEx Ground Midland-Parking Expansion | Parking Lot & Decking Area Expansion | FedEX / Diamond Z Engineering | 2020 | $597,662.01 | Dan Mendiola | 440-842-6501 |
| City of Midland Misc Concrete | Concrete work for the City | City of Midland | 2018-20 | $3,750,000.00 | City of Midland | 432-685-7233 |
| City of Fort Stockton Landfill | Infrastructure Cell I-1 and Cell IV-1 | City of Fort Stockton/Hanson Professional Services Inc. | 2020-21 | $1,285,723.32 | Hanson Professional Services | 361-814-4401 |
| Pecos Phase 1A Waterline Extension | Waterline Extension | Town of Pecos City | 2020-21 | $181,406.00 | Town of Pecos City | 432-445-2421 |
| Ector County Utility District Drainage Improvements | Drainage Improvements | ECUD | 2020-21 | $148,875.00 | | |
| Permian High School Field Restrooms Facility | New Restroom Facility for Permian High School | ECISD/JSA Architects | 2020-21 | $390,000.00 | JSA Architects | 432-362-6565 |
| Gaines County Branch Library | Rehabilitation and renovation on an existing building into a Library. | Gaines County/ DRG Architects | 2020-21 | $1,173,162.00 | DRG Architects | 210-349-7950 |
| Midland Airport Parking Improvements | Parking Improvements | City of Midland/PSC | 2020-21 | $7,646,971.00 | City of Midland | 432-685-7233 |
| City of Post Tda DRP Sidewalk Improvements | Sidewalk Improvements | City of Post/Jacob & Martin | 2021 | $327,911.82 | City of Post | 806-495-2811 |
| Tradewinds Blvd Roundabout & Median Improvements | Roundabout & Median Improvements | City of Midland | 2020-21 | $436,399.00 | City of Midland | 432-685-7233 |
| Floyd Gwin Park Sports Courts | Sports Courts | City of Odessa/KDC | 2021 | $ 7,000,000.00 | City of Odessa | 432-335-3227 |
| Borets Esp Service Center(CMAR) | Building/Yard Remodel | Borets | 21-22 | $ 6,000,000.00 | Borets | |
| Upton County Midkiff Park Building(CMAR) | Midkiff Park Building | Upton county | 2020-21 | $ 2,000,000.00 | Dusty Kilgore | 432-693-2321 |
| Upton County Swimming Facility | Pool Facility | Upton County/ KDC | 21-22 | $ 1,400,000.00 | Dusty Kilgore | 432-693-2321 |
| Floyd Gwin Park Concession Building | Concession Building | City of Odessa | 22 | $ 416,500.00 | Steve Patton | 432-3353227 |
| | | | | | | |
| | | | | | | |
| **Projects Under Construction** | | | | | | |
| | | | | | | |
| Midland Airport Multi- Facility Rehabiltation | Multi-Facility Rehabiltation | City of Midland/PSC | 21-22 | $ 6,266,014.00 | City of Midland | 432-685-7233 |
| Upton County 4H Addeon (CMAR) | Addition to 4H Facility | Upton County | 22 | $ 2,297,572.00 | Dusty Kilgore | 432-693-2321 |
| City of Midland Traffic Signal Improvements | Traffic Signal improvements | City of Midland | 22 | $ 815,643.00 | City of Midland | 432-685-7233 |
| Floyd Gwin Park Renovations | Total Park Renovation | City of Odessa/KDC | 21-22 | $ 4,960,000.00 | Steve Patton | 432-335-3227 |
| Odessa Animal Shelter Facility | New Animal Shelter Facility for the City Of Odessa, Tx | City of Odessa/CUORUM | 21-22 | $ 7,358,472.00 | City of Odessa | 432-335-3253 |
| Loving County Community Center | New Community Center | Loving County/Vandergriff | 22 | $ 7,999,000.00 | Loving County | |
| Midland Draw Widening | Draw Widening | City of Midland | 22 | $ 1,985,689.00 | City of Midland | 432-685-7233 |
| Faudree Linear Detention Basins | Detention Basins | City of Odessa | 22 | $ 4,196,458.00 | City of Odessa | 432-335-3253 |
| MAF Gate Relocation and Cargo Rd Reconstruction | Gate Relocation and Cargo Road Reconstruction | City of Midland/PSC | 22 | $ 1,641,682.00 | City of Midland | 432-685-7233 |
| Holy Cross Catholic High School Gymnasium(CMAR) | Gymansium | Holy Cross Catholic High School | 22 | $ 3,282,000.00 | Roy Ramirez | 432-553-4613 |
| Applied Blockchain Next-Gen Datacenter | Datacenter | Applied Blockchain | 22 | $ 26,000,000.00 | | |
| Loving County JOP, Constable, and DPS CMV Inspection Station | | Loving County | 22 | $ 15,170,707.00 | Loving County | |
| West Texas food Bank Odessa Expansion | Expansion of current food bank facility | | 22 | $ 11,123,000.00 | Libby Campbell | |
| Odessa Country Club Indoor Tennis Center(CMAR) | Indoor Tennis Facility | Odessa Country Club | 22 | $ 5,000,000.00 | Ryan George | 432-272-4500 |

# SECTION 00 52 00 – AGREEMENT FORM

## PART 1 - GENERAL

1.1 APPLICABLE DOCUMENT

A. The Agreement for the Work will be written on the Owner provided form that follows Section 00 80 10 "Owner Documents."

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION (Not Used

END OF SECTION

**DOCUMENT 00 54 10 - WEATHER TABLE**
**(MIDLAND, TX)**

The number of calendar days indicated on the Proposal Form is the contract time allowed to complete Project from Notice to Proceed to Substantial Completion, taking into account the normal weather occurrence as shown in the Table below. Weather occurrences exceeding those listed in the table will be taken into consideration when evaluating a request for extension in contract time.

| MONTH | MEAN NUMBER DAYS PRECIPITATION (0.01" OR MORE) | NORMAL PRECIPITATION (WATER EQUIVALENT) (INCHES) | MEAN NUMBER DAYS SNOWFALL (INCLUDING ICE PELLETS/SLEET) (1.0" OR MORE) | AVERAGE NUMBER OF DAYS THAT MIN. TEMP IS < 40 |
|---|---|---|---|---|
| JANUARY | 2.8 | 1.28 | 0 | 25.6 |
| FEBRUARY | 2.6 | 1.02 | 0.2 | 16.8 |
| MARCH | 4 | 1.95 | 0 | 4.8 |
| APRIL | 3 | 1.42 | 0 | 2 |
| MAY | 4.6 | 2.00 | 0 | 0 |
| JUNE | 5.2 | 2.01 | 0 | 0 |
| JULY | 4 | 1.47 | 0 | 0 |
| AUGUST | 5.6 | 2.06 | 0 | 0 |
| SEPTEMBER | 6.6 | 2.38 | 0 | 0 |
| OCTOBER | 3.8 | 1.58 | 0 | 3.4 |
| NOVEMBER | 2 | 0.89 | 0 | 8.6 |
| DECEMBER | 3.6 | 1.16 | 0 | 19.8 |
| ANNUALLY | 42.5 | 15.68 | 1.9 | 107.4 |

This table is based on information from NOAA and measured at the Midland International Airport, Midland, Texas.

Means, normal, and averages are based on records covering a period of 5 years from 2016-2020.

## SECTION 00 80 10 – OWNER DOCUMENTS

### PART 1 - GENERAL

1.1 APPLICABLE DOCUMENT

A. Owner provided documents are as indicated below and that follows this Section.

1. Notice to Bidders.
2. Bid Bond.
3. Contract.
4. Exhibit C- Bonding Requirements.
5. Performance Bond.
6. Payment Bond.
7. Exhibit D- Building Wage Rate.
8. Exhibit D- Heavy & Highway Wage Rate.
9. Conflict of Interest Reporting Requirements.
10. Conflict of Interest Questionnaire.
11. Affidavit of Eligibility.
12. General Conditions of Bidding.
13. Standard Purchase Terms and Conditions.

### PART 2 - PRODUCTS (Not Used)

### PART 3 - EXECUTION (Not Used)

END OF SECTION

## NOTICE TO BIDDERS

IF THIS PURCHASE REQUIRES A CONTRACT, THE ATTACHED **CONTRACT AND INSURANCE REQUIREMENTS ARE NON-NEGOTIABLE**. MODIFICATIONS BY BIDDER/COMPANY OF ANY MATERIAL TERM(S) TO THE CONTRACT DOCUMENTS WILL BE DEEMED A NON-RESPONSIVE BID. NON-RESPONSIVE BIDS WILL BE REJECTED. BIDDER/COMPANY MUST BE WILLING TO SIGN THE CONTRACT AS IS AND WITHOUT MODIFICATIONS, PROVIDE PROPERLY EXECUTED BONDS (IF APPLICABLE) AND PROVIDE INSURANCE SPECIFICALLY AS REQUIRED WITHIN THE CONTRACT DOCUMENTS **WITHIN 21 DAYS** OF THE DATE OF THE TRANSMITTAL LETTER.

IF THE SELECTED BIDDER/COMPANY CANNOT MEET THE ABOVE REQUIREMENTS, THEN **THE CITY RESERVES THE RIGHT TO AWARD THIS PURCHASE TO ANOTHER BIDDER**.

**IMPORTANT NOTICE** – IF THE CONTRACT DOCUMENTS REQUIRE WORKER'S COMPENSATION INSURANCE, BIDDER/COMPANY MUST CARRY WORKER'S COMPENSATION INSURANCE TO BE ELIGIBLE FOR THIS CONTRACT. IF YOU CANNOT PROVIDE WORKER'S COMPENSATION INSURANCE AS REQUIRED BY STATE OF TEXAS STATUTE, WE RESPECTFULLY REQUEST THAT YOU "NO BID" THIS WORK.

**COMPLIANCE:** Company agrees that it shall comply with Texas Government Code Section 2252.908, *et seq.*, as amended. Company agrees that it shall comply with Texas Local Government Code Section 176.006, *et seq.*, as amended. For further instructions on how to comply with Texas Government Code Section 2252.908 and Texas Local Government Code Section 176.006,

please go to https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm and https://www.ethics.state.tx.us/filinginfo/conflict_forms.htm.

ANY VENDOR WHO FAILS TO COMPLY WITH THE TERMS OF THE AWARD **MAY BE DECLARED AN IRRESPONSIBLE VENDOR**. BIDS SUBMITTED BY SAID VENDOR SHALL NOT BE CONSIDERED AGAIN FOR A MINIMUM PERIOD OF SIX MONTHS AS DETERMINED BY THE CITY MANAGER.

# THE AMERICAN INSTITUE OF ARCHITECTS

AIA Document A310

## Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we
**Onyx General Contractors, LLC**

as Principal, hereinafter called the Principal, and
**FCCI Insurance Company**
**6300 University Parkway, Sarasota, Fl 34240**
a corporation duly organized under the State of **Florida**
as Surety, hereinafter called the Surety, are held and firmly bound unto
**City of Midland**
as Obligee, hereinafter called the Obligee, in the sum of
*****FIVE PERCENT OF BID AMOUNT*** (5%)**
for the payment of which sum well and truly to be made, the said Principal and said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for
**West and North Citizens' Collection Stations**

NOW, THEREFORE, If the Obligee, shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee, in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee, the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for with the Obligee, may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this **August 9, 2023**

(Witness)

**Onyx General Contractors, LLC**

(Seal)

Vice President
(Title)

**FCCI Insurance Company**

(Witness)

(Seal)

**Tina McLelland** **Attorney-in-Fact**

FCCI INSURANCE GROUP

# GENERAL POWER OF ATTORNEY

Know all men by these presents: That the FCCI Insurance Company, a Corporation organized and existing under the laws of the State of Florida (the "Corporation") does make, constitute and appoint:

Garland Martin; Robbie Martin; Josh Andrajack; Tina McLelland; Haevyn Knobloch

Each, its true and lawful Attorney-In-Fact, to make, execute, seal and deliver, for and on its behalf as surety, and as its act and deed in all bonds and undertakings provided that no bond or undertaking or contract of suretyship executed under this authority shall exceed the sum of (not to exceed $20,000,000.00): $20,000,000.00

This Power of Attorney is made and executed by authority of a Resolution adopted by the Board of Directors. That resolution also authorized any further action by the officers of the Company necessary to effect such transaction.

The signatures below and the seal of the Corporation may be affixed by facsimile, and any such facsimile signatures or facsimile seal shall be binding upon the Corporation when so affixed and in the future with regard to any bond, undertaking or contract of surety to which it is attached.

In witness whereof, the FCCI Insurance Company has caused these presents to be signed by its duly authorized officers and its corporate Seal to be hereunto affixed, this 23rd day of July, 2020.

Attest: _____
Christina D. Welch, President
FCCI Insurance Company

FCCI INSURANCE COMPANY CORPORATE SEAL 1973 FLORIDA

_____
Christopher Shoucair,
EVP, CFO, Treasurer, Secretary
FCCI Insurance Company

State of Florida
County of Sarasota

Before me this day personally appeared Christina D. Welch, who is personally known to me and who executed the foregoing document for the purposes expressed therein.

My commission expires: 2/27/2027

NOTARY PUBLIC STATE OF FLORIDA PEGGY SNOW Commission # HH 328535 Expires February 27, 2027

_____
Notary Public

State of Florida
County of Sarasota

Before me this day personally appeared Christopher Shoucair, who is personally known to me and who executed the foregoing document for the purposes expressed therein.

My commission expires: 2/27/2027

NOTARY PUBLIC STATE OF FLORIDA PEGGY SNOW Commission # HH 328535 Expires February 27, 2027

_____
Notary Public

## CERTIFICATE

I, the undersigned Secretary of FCCI Insurance Company, a Florida Corporation, DO HEREBY CERTIFY that the foregoing Power of Attorney remains in full force and has not been revoked; and furthermore that the February 27, 2020 Resolution of the Board of Directors, referenced in said Power of Attorney, is now in force.

Dated this 9th day of August, 2023

FCCI INSURANCE COMPANY CORPORATE SEAL FLORIDA

_____
Christopher Shoucair, EVP, CFO, Treasurer, Secretary
FCCI Insurance Company

1-IONA-3592-NA-04, 7/2021

# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 2/25/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

| | |
|---|---|
| PRODUCER<br>InSource Insurance Group, LLC<br>5108 Wayland Dr.<br>Odessa TX 79762-5513 | CONTACT NAME: Kelly Elliott<br>PHONE (A/C, No, Ext): (432) 362-8800 FAX (A/C, No): (432) 362-8855<br>E-MAIL ADDRESS: KellyE@InSourceIns.com |
| INSURED<br>Onyx Contractors, LP<br>(See Named Insd List)<br>P. O. Box 60547<br>Midland TX 79711 | INSURER(S) AFFORDING COVERAGE — NAIC #<br>INSURER A: The Charter Oak Fire Insurance Company — 25615<br>INSURER B: Travelers Indemnity Co of America<br>INSURER C: Travelers Property Casualty Insurance C — 36161<br>INSURER D: Texas Mutual Insurance Company — 22945<br>INSURER E: Hanover Insurance Company - Worcester<br>INSURER F: Argonaut Insurance Co |

**COVERAGES** **CERTIFICATE NUMBER:** CL2222526595 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSD | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS | |
|---|---|---|---|---|---|---|---|---|
| A | X COMMERCIAL GENERAL LIABILITY<br>CLAIMS-MADE [X] OCCUR<br>X S&A Pollution 30/90<br>GEN'L AGGREGATE LIMIT APPLIES PER:<br>X POLICY [ ] PRO-JECT [ ] LOC<br>OTHER: | | | 660-8S291786 | 3/1/2022 | 3/1/2023 | EACH OCCURRENCE<br>DAMAGE TO RENTED PREMISES (Ea occurrence)<br>MED EXP (Any one person)<br>PERSONAL & ADV INJURY<br>GENERAL AGGREGATE<br>PRODUCTS - COMP/OP AGG | $ 1,000,000<br>$ 300,000<br>$ 5,000<br>$ 1,000,000<br>$ 2,000,000<br>$ 2,000,000 |
| B | AUTOMOBILE LIABILITY<br>X ANY AUTO<br>ALL OWNED AUTOS<br>SCHEDULED AUTOS<br>HIRED AUTOS<br>NON-OWNED AUTOS<br>X MCS-90 | | | 810-5R534483 | 3/1/2022 | 3/1/2023 | COMBINED SINGLE LIMIT (Ea accident)<br>BODILY INJURY (Per person)<br>BODILY INJURY (Per accident)<br>PROPERTY DAMAGE (Per accident) | $ 1,000,000<br>$<br>$<br>$ |
| C | X UMBRELLA LIAB OCCUR<br>EXCESS LIAB CLAIMS-MADE<br>DED X RETENTION $ 10,000 | | | CUP-2T462160 | 3/1/2022 | 3/1/2023 | EACH OCCURRENCE<br>AGGREGATE | $ 10,000,000<br>$ 10,000,000 |
| D<br>F | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY<br>ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N N/A<br>(Mandatory in NH)<br>If yes, describe under DESCRIPTION OF OPERATIONS below | | | 0001154452 TX<br>WC 928848488194 MN | 3/1/2022<br>3/1/2022 | 3/1/2023<br>3/1/2023 | X PER STATUTE OTH-ER<br>E.L. EACH ACCIDENT<br>E.L. DISEASE - EA EMPLOYEE<br>E.L. DISEASE - POLICY LIMIT | $ 1,000,000<br>$ 1,000,000<br>$ 1,000,000 |
| E | Equipment Floater | | | RED A551456-07 | 3/1/2022 | 3/1/2023 | Rented/Leased | 1,000,000 |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

SUBJECT TO POLICY TERMS & CONDITIONS AND A WRITTEN CONTRACT:
GL, AUTO & UMBRELLA POLICIES INCLUDE A BLANKET ADDITIONAL INSURED. WC, GL, AUTO & UMBRELLA INCLUDE A BLANKET WAIVER OF SUBROGATION. WHEN REQUIRED BY WRITTEN CONTRACT PRIMARY - NON-CONTRIBUTORY COVERAGE APPLIES. POLICIES INCLUDE 30 DAY NOTICE OF CANCELLATION EXCEPT 10 DAYS FOR NON-PAYMENT OF PREMIUM.
EQUIPMENT FLOATER INCLUDES BLANKET LOSS PAYEE AS YOUR INTEREST MAY APPEAR FOR RENTED/LEASED EQUIPMENT.

**CERTIFICATE HOLDER**

SAMPLE CERTIFICATE

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

David Wood/KJE



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The ACORD name and logo are registered marks of ACORD

## Additional Named Insureds

| Other Named Insureds | |
|---|---|
| IAQ 1260, Ltd. | Limited corporation, Additional Named Insured |
| IAQ 1788, Ltd | Limited corporation, Additional Named Insured |
| IAQ 191, LLC | Limited Liability Company, Additional Named Insured |
| IAQ Kermit, Ltd. | Limited corporation, Additional Named Insured |
| IAQ Land, Ltd | Limited corporation, Additional Named Insured |
| IAQ Oil and Gas, LLC | Limited Liability Company, Additional Named Insured |
| IAQ Pecos, LLC | Limited Liability Company, Additional Named Insured |
| IAQ Realty, Ltd | Limited corporation, Additional Named Insured |
| MCI 221 Family Limited | Limited corporation, Additional Named Insured |
| MCI 221 GP, LLC | General Partnership, Additional Named Insured |
| OC Holdings, Inc. | General Partnership, Additional Named Insured |
| Onyx Contractors Operations, LP | C Corporation, Additional Named Insured |
| Onyx General Contractors, LLC | Limited Liability Company, Additional Named Insured |
| Tronyx Electrical Contractors, LLC | Limited Liability Company, Additional Named Insured |


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MIDLAND
Purchasing Division

# THE CITY OF MIDLAND
## CONTRACT
## Contract No. 23004412

THIS CONTRACT, effective the 13th day of September, 2023, by and between the City of Midland, hereinafter referred to as "CITY", and Onyx General Contractors, LLC, hereinafter referred to as "COMPANY", is made for the following considerations:

1. **Cost:** Total Proposal: $ 6,422,091.20 DOLLARS

2. **Scope of Work:** COMPANY shall perform all work described for a new sound system at Momentum Bank Ballpark. Said work being more particularly described in the following documents, which are attached hereto and incorporated herein for all purposes.

EXHIBIT A..... Specifications, Proposal or Cost Summary
EXHIBIT B.....Intentionally Omitted
EXHIBIT C..... Bonding instructions for Public Works Contract of $50,000 and more
EXHIBIT D..... Wage Scale

3. **City:** The words "CITY's Representative" or "representative" shall mean Jeffery Ahrlett or the designee under whose supervision these contract documents, including the plans and specifications, were prepared, or who may inspect work performed under this Contract; or such other representative, supervisor, or inspector as may be authorized by CITY to act in any particular capacity under this Contract.

4. **City's Representative:** CITY's Representative may make periodic visits to the site to observe the progress and quality of the executed work and to determine, in general, if the work is proceeding in accordance with the contract documents. CITY's representative will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the work, nor will such representative be responsible for the construction means, methods, techniques, sequences or procedures, or the safety precautions incident thereto. CITY's representative will not be responsible for COMPANY's failure to perform the work in accordance with the contract.

5. **Company:** Unless otherwise stipulated, COMPANY shall provide and pay for all materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and all water, light, power, fuel,

transportation and all other facilities necessary for the execution and completion of the work covered by the contract documents. Unless otherwise specified, all materials shall be new, and both workmanship and materials shall be of a good quality. COMPANY shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

5.1. COMPANY shall, at its expense, obtain all permits and licenses necessary for the performance of this contract and pay all fees and taxes required by law, and comply with all laws, ordinances, rules and regulations governing COMPANY's performance of the contract, including all environmental laws and regulations, whether state or federal.

5.2. All work shall be done and all materials furnished in strict conformity with the contract and specifications.

6. **Minor Work Not Mentioned:** All minor detail of the work not specifically mentioned in the Specifications but obviously necessary for the proper completion of the work, such as the proper connection of new work to old, shall be considered as incidental to and a part of the work for which the prices are named in the contract. COMPANY will not be entitled to any additional compensation therefor unless specifically stated otherwise. Otherwise the term "extra work" as used in this contract shall mean and include all work that may be required by CITY to be done by COMPANY to accomplish any alteration or addition to the work as shown on the Specifications.

6.1. COMPANY shall perform all extra work under the direction of CITY's Representative when presented with a written work order signed by CITY's Representative, subject, however, to the right of the COMPANY to require written confirmation of such extra work order by CITY. Payment for extra work shall be as agreed in the work order.

7. **Safety:** COMPANY shall at all times exercise reasonable precaution for the safety of employees and others on or near the work and shall comply with all applicable provisions of federal, state and municipal laws. All machinery and equipment and other physical hazards shall be guarded in accordance with federal, state or municipal laws or regulations.

8. **INDEMNITY: COMPANY SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND CITY AND ALL OF CITY'S OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, ACCIDENTAL DEATH, LOSSES, PROPERTY DAMAGE AND EXPENSES OF ANY CHARACTER WHATSOEVER, INCLUDING ATTORNEY'S FEES, BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR**

**PROPERTY, ON ACCOUNT OF ANY NEGLIGENT ACT OF COMPANY, THEIR AGENTS OR EMPLOYEES, OR ANY SUBCONTRACTOR, IN THE EXECUTION, SUPERVISION AND OPERATIONS GROWING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF THIS CONTRACT, AND COMPANY WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST CITY OR ANY OF ITS OFFICERS, AGENTS OR EMPLOYEES, INCLUDING ATTORNEY'S FEES. THE OBLIGATIONS CONTAINED IN THIS SECTION 8 SHALL SURVIVE THE TERMINATION OF THIS CONTRACT.**

8.1. **COMPANY SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND CITY AND ALL OF CITY'S OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, ACCIDENTAL DEATH, PROPERTY DAMAGE, LOSSES, AND EXPENSES OF ANY CHARACTER WHATSOEVER INCLUDING ATTORNEY'S FEES, BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ON ACCOUNT OF ANY NEGLIGENT ACT OF CITY, CITY'S OFFICERS, AGENTS AND EMPLOYEES, WHETHER SUCH NEGLIGENT ACT WAS THE SOLE PROXIMATE CAUSE OF THE INJURY OR DAMAGE OR A PROXIMATE CAUSE JOINTLY AND CONCURRENTLY WITH COMPANY OR COMPANY'S EMPLOYEES, AGENTS OR SUBCONTRACTORS NEGLIGENCE IN THE EXECUTION, SUPERVISION AND OPERATIONS GROWING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF THIS CONTRACT, AND COMPANY WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST CITY OR ANY OF ITS OFFICERS, AGENTS OR EMPLOYEES, INCLUDING ATTORNEY'S FEES. THE OBLIGATIONS CONTAINED IN THIS SECTION 8.1 SHALL SURVIVE THE TERMINATION OF THIS CONTRACT.**

8.2. **COMPANY AGREES THAT IT WILL INDEMNIFY AND SAVE CITY HARMLESS FROM ALL CLAIMS GROWING OUT OF ANY DEMANDS OF SUBCONTRACTORS, LABORERS, WORKMEN, MECHANICS, MATERIALMEN, AND FURNISHERS OF MACHINERY AND PARTS THEREOF, EQUIPMENT, POWER TOOLS AND ALL SUPPLIES, INCURRED IN THE FURTHERANCE OF THE PERFORMANCE OF THIS CONTRACT. WHEN CITY SO DESIRES, COMPANY SHALL FURNISH SATISFACTORY EVIDENCE THAT ALL OBLIGATIONS OF THE NATURE HEREINABOVE DESIGNATED HAVE BEEN PAID, DISCHARGED OR WAIVED. COMPANY, ITS SURETIES AND INSURANCE CARRIERS SHALL DEFEND, INDEMNIFY AND SAVE HARMLESS CITY AND**

**ALL OF ITS OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, OR CLAIMS OF ANY CHARACTER WHATSOEVER, BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ARISING FROM ANY ACT OF COMPANY OR ANY SUBCONTRACTOR, THEIR AGENTS OR EMPLOYEES, IN THE EXECUTION AND SUPERVISION OF THIS CONTRACT, AND WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST CITY OR ANY OF ITS OFFICERS, AGENTS, OR EMPLOYEES INCLUDING ATTORNEY'S FEES. THE OBLIGATIONS CONTAINED IN THIS SECTION 8.2 SHALL SURVIVE THE TERMINATION OF THIS CONTRACT.**

9. **Start of Work:** COMPANY shall commence work no later than ten (10) days after receipt of the execution of this document or other written release to proceed and shall complete such work no later than 365 calendar days after release to proceed.

10. **Clean Up:** COMPANY shall promptly remove from CITY's premises all materials condemned by CITY's Representative on account of failure to conform to the contract, whether actually incorporated in the work or not, and COMPANY shall at its own expense promptly replace such condemned materials with other materials conforming to the requirements of the contract. COMPANY shall also bear the expense of restoring all work of other contractors damaged by any such removal or replacement. If COMPANY does not remove and replace any such condemned materials within a reasonable time after a written notice by CITY, CITY may remove and replace such at COMPANY's expense.

11. **Warranty:** Neither the final payment nor any provision in this contract shall relieve COMPANY of responsibility for faulty materials or workmanship, and he shall remedy any defects due thereto and pay for any damage to other work resulting therefrom, which shall appear within a period of one (1) year from the date of substantial completion. CITY shall give notice of observed defects with reasonable promptness.

12. **Remedy:** CITY may, on account of subsequently discovered evidence, withhold whole or part of any payment to such extent as may be necessary to protect itself from loss on account of:

12.1. Defective work not remedied; or

12.2. Claims filed or reasonable evidence indicating possible filing of claims; or

12.3. Failure of COMPANY to make payments promptly to subcontractors or for material or labor which CITY may pay as an agent for the COMPANY; or

12.4. Damages to another contractor or subcontractor.

When the above grounds to withhold payment are removed, or COMPANY provides a surety bond satisfactory to CITY, which will protect CITY in the amount withheld, payment may be released.

13. **Funding Out:** In the event no funds or insufficient funds are appropriated and budgeted or are otherwise unavailable in any fiscal period for contract payments due under the contract, then this contract shall terminate on the last day of the fiscal period for which full appropriations were made, without penalty or expense to CITY of any kind whatsoever.

14. **Wage Scale:** COMPANY agrees to pay all workmen in his employ no less than the generally prevailing wage rate for employees of similar category in the Permian Basin Area, as is depicted in the wage rate scale attached hereto as EXHIBIT D, and incorporated herein by reference for all legal purposes.

14.1. If applicable, the Davis-Bacon Act, 29 CFR 5.5, and any related acts or regulations are hereby incorporated by reference and made a part of this Contract, and all terms and requirements under said laws, by such incorporation, are made terms and requirements of this Contract, to which the parties to this Contract have agreed to be bound.

15. **Prompt Pay Act:** CITY and COMPANY agree that Texas Government Code, Chapter 2251, Payment for Goods and Services (the "Prompt Pay Act") does not waive governmental immunity.

16. **Payment; Retainage:** After all work is completed by COMPANY, including all Change Orders altering the original scope and amount of the contract are completed, and the CITY has inspected and approved that the work is completed and in compliance with the contract and all subsequent Change Orders, the CITY may thereafter issue payment to COMPANY in the amount of the contract and all Change Orders. The CITY shall be the final judge of when the work is completed by COMPANY. The CITY, in its sole discretion, shall determine if the work under the contract and under any Change Orders has been done to the CITY's requirements.

16.1. The CITY may make periodic payments to COMPANY; provided, however, such periodic payments may only be made pursuant to this section, and only after all work and all Change Orders are completed by COMPANY and approved by the CITY. The approval shall be in the CITY's sole discretion. Requests for progress payments may be made to the extent of the materials and labor completed at the end of each month. Upon approval by the CITY or the CITY's representative, the request and invoice shall be forwarded for payment less 5% retainage. The total of these payments shall not exceed 95% of the total contract amount.

17. **Late Completion; Liquidated Damages:** It is hereby understood and mutually agreed, by and between COMPANY and the CITY, that the date of beginning and the time for completion as specified in the contract of the work to be done hereunder are ESSENTIAL CONDITIONS of this contract; and it is further mutually understood and agreed that the work embraced in this contract shall be commenced on a date to be specified in the "Notice to Proceed." COMPANY agrees that said work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between COMPANY and the CITY, that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

17.1. In the event COMPANY shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the CITY, then COMPANY and COMPANY's surety, if any, shall be liable for and does hereby agree, as a part consideration for the awarding of this contract, to pay to the CITY $500.00, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every day that COMPANY shall be in default after the time stipulated in the contract for completing the work. Further, the CITY shall have the right to cancel this contract for such delay. In the event the CITY cancels this contract pursuant to the terms of this section, the CITY shall pay to COMPANY only those monies deemed appropriate by the CITY, in its sole discretion, to compensate COMPANY for any work actually performed, less any liquidated damages COMPANY owes the CITY.

17.2. The said amount is fixed and agreed upon by and between COMPANY and the CITY because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the CITY would in such event sustain, and said amount is agreed to be the amount of damages which the CITY would sustain and said amount shall be retained from time to time by the CITY from current periodical estimates.

17.3. It is further agreed that time is of the essence of each and every portion of this contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this contract. Provided, that COMPANY shall not be charged with liquidated damages or any excess cost when the CITY determines, in its sole discretion, that COMPANY is without fault and COMPANY's reasons for the time extension are acceptable to the CITY. Provided, further, that COMPANY shall not be charged with liquidated damages or excess cost when the delay in completion of the work is due

a. To any preference, priority or allocation order duly issued by the Government;

b. To unforeseeable cause beyond the control and without the fault or negligence of COMPANY, including, but not restricted to, acts of God, or of the public enemy, acts of the CITY, acts of another contractor in the performance of a contract with the CITY, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and severe weather; and

c. To any delays of subcontractors or suppliers occasioned by any of the causes specified in subsections (a) and (b) of this article.

17.4. Provided, further, that COMPANY shall, within ten (10) days from the beginning of such delay, unless the CITY shall, in its sole discretion grant a further period of time prior to the date of final settlement of the contract, notify the CITY, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify COMPANY within a reasonable time of its decision in the matter.

17.5. **COMPANY AGREES THAT THE PAYMENT OF SUCH LIQUIDATED DAMAGES MAY BE RECOVERED BY THE CITY FROM RETAINAGE HELD BY THE CITY. NOTWITHSTANDING ANY OTHER PROVISION HEREOF, COMPANY HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY, CITY'S EMPLOYEES AND OFFICERS FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES, OR CAUSES OF ACTION OF ANY KIND WHATSOEVER ARISING FROM THE CITY WITHHOLDING PAYMENT FROM COMPANY AS LIQUIDATED DAMAGES FOR COMPANY'S FAILURE TO COMPLETE THE WORK WITHIN THE TIME SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKINGS CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS, OR CITY'S NEGLIGENCE.**

17.6. **COMPANY SHALL RECEIVE NO FINANCIAL COMPENSATION FOR DELAY OR HINDRANCE TO THE WORK. IN NO EVENT SHALL THE CITY BE LIABLE TO COMPANY OR ANY SUBCONTRACTOR OR SUPPLIER, ANY OTHER PERSON OR ANY SURETY FOR OR ANY EMPLOYEE OR AGENT OF ANY OF THEM, FOR ANY DAMAGES ARISING OUT OF OR ASSOCIATED WITH ANY DELAY OR HINDRANCE TO THE WORK, REGARDLESS OF THE SOURCE OF THE DELAY OR HINDRANCE, INCLUDING EVENTS OF FORCE MAJEURE, AND EVEN IF SUCH DELAY OR HINDRANCE RESULTS FROM, ARISES OUT OF OR IS DUE, IN WHOLE OR IN PART, TO THE NEGLIGENCE OF THE CITY. COMPANY'S SOLE REMEDY IN ANY SUCH CASE SHALL BE AN EXTENSION OF TIME.**

18. **No Third-Party Beneficiary:** CITY's approval of this contract does not create a third-party

beneficiary. There is no third-party beneficiary to this contract. No person or entity who is not a party to this contract shall have any third-party beneficiary or other rights hereunder.

**19. WAIVER OF ATTORNEY FEES: BY EXECUTING THIS CONTRACT, COMPANY AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST CITY REGARDING THE AWARD OR ATTORNEY'S FEES, WHICH ARE IN ANY WAY RELATED TO THIS CONTRACT, OR THE CONSTRUCTION, INTERPRETATION OR BREACH OF THIS CONTRACT. COMPANY SPECIFICALLY AGREES THAT IF COMPANY BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS CONTRACT, THE CONSTRUCTION, INTERPRETATION, VALIDITY OR BREACH OF THIS CONTRACT, INCLUDING, BUT NOT LIMITED TO, ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, COMPANY AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY'S FEES TO WHICH COMPANY MIGHT OTHERWISE BE ENTITLED.**

**COMPANY AGREES THAT THIS IS THE VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY-EXISTING KNOWN RIGHT. COMPANY ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THIS CONTRACT. COMPANY FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN CITY AND COMPANY. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OR GOVERNMENTAL IMMUNITY AND SHALL SURVIVE THE TERMINATION OF THIS CONTRACT.**

**COMPANY IS RELYING ON ITS OWN JUDGMENT. COMPANY HAD THE OPPORTUNITY TO DISCUSS THIS CONTRACT WITH COMPETENT LEGAL COUNSEL PRIOR TO ITS EXECUTION. THE OBLIGATIONS CONTAINED IN THIS SECTION 18 SHALL SURVIVE THE TERMINATION OF THIS CONTRACT.**

20. **Governmental Immunity:** By executing this contract CITY is not waiving its right of governmental immunity. CITY is retaining its immunity from suit. CITY is not granting consent to be sued by legislative resolution or action.

**THERE IS NO WAIVER OF GOVERNMENTAL IMMUNITY.**

21. **Insurance:**

COMPANY shall at all times during the term of this Contract maintain and keep in full force and effect insurance in the following types and minimum amounts with companies authorized to do business in the State of Texas:

| | |
|---|---|
| Commercial General Liability (including Contractual liability): | |
| -Personal Injury: | $1,000,000.00 per person |
| | $1,000,000.00 per occurrence |
| -Property Damage: | $500,000.00 per occurrence |
| Business Automobile Liability: | $250,000.00 combined single limit - |
| | Personal Injury and Property Damage |
| Workers' Compensation: | Statutory limits |
| Employers' Liability: | $500,000.00 per accident or occurrence |

The Commercial General Liability shall be on a per project aggregate, including completed operations, and shall be on a claims-occurred basis. This insurance shall name CITY as an additional insured and waive subrogation in favor of CITY.

The Business Automobile Liability insurance provided by COMPANY shall cover any auto for bodily injury and property damage, including owned vehicles, hired and non-city vehicles, and employee non-ownership, and the amount of such policy shall be a minimum of $250,000.00 covering any vehicle used for the execution of the work that is the subject of this Contract. This insurance shall name CITY as an additional insured and waive subrogation in favor of CITY.

The Workers' Compensation coverage provided by COMPANY shall inure to the benefit of employees injured during the course and scope of their employment by COMPANY pursuant to this Contract. The Workers' Compensation shall waive all rights of subrogation in favor of CITY.

All insurance required pursuant to this Contract shall provide for a waiver of subrogation in favor of CITY. All insurance required pursuant to this Contract, except for Workers' Compensation Insurance, shall name CITY as an additional insured on a claims occurred basis. CITY shall be provided the notice by COMPANY's insurance provider not later than thirty (30) days prior to any reduction or termination of such coverage.

COMPANY shall contractually require all contractors, subcontractors, and sub-subcontractors that work on any portion of the work that is the subject of this Contract to obtain insurance coverage that meets or exceeds the policy requirements and minimum amounts specified herein. All contractors, subcontractors, and sub-subcontractors shall obtain insurance policies that provide blanket waivers of

subrogation in favor of the City of Midland and policies that name the City of Midland as an additional insured on a claims occurred basis (except workers' compensation).

The parties agree that, prior to the execution of the Contract, COMPANY shall provide one or more certificates of insurance specifically stating that these requirements have been met and subject to the approval of CITY. CITY shall not be required to provide any insurance whatsoever pursuant to this Contract.

COMPANY certifies that the certificate of insurance provided as required herein complies with the requirements of Chapter 1811 of the Texas Insurance Code. COMPANY shall not use an unapproved certificate of insurance or insert inappropriate language on a certificate. Compliance with state law is the sole responsibility of COMPANY.

22. **Assignment**: COMPANY shall not, either directly or indirectly, assign all or any part of this Contract or any interest, right or privilege herein, without the prior written consent of CITY. The issue on whether or not to grant consent to an assignment is in the sole discretion of CITY.

23. **RELEASE: NOTWITHSTANDING ANY OTHER PROVISION CONTAINED HEREIN, COMPANY HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY AND CITY'S COUNCIL MEMBERS, EMPLOYEES, AND OFFICERS FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER THAT COMPANY HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING, BUT NOT LIMITED TO, BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKINGS CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS, OR CITY'S NEGLIGENCE. THE OBLIGATIONS CONTAINED IN THIS SECTION SHALL SURVIVE THE TERMINATION OF THIS CONTRACT.**

24. **Governing Law and Venue:** This contract shall be governed by the laws of the State of Texas. All performance and payment made pursuant to this contract shall be deemed to have occurred in Midland County, Texas. The obligations and undertakings of each of the parties to this Agreement shall be deemed to have occurred in Midland County, Texas. Exclusive venue for any claims, suits or any other action arising from or connected in any way to this contract or the performance of this contract shall be in Midland County, Texas.

25. **Independent Contractor:** COMPANY shall perform all work and services described herein as an independent contractor and not as an officer, agent, servant, or employee of CITY. COMPANY shall have exclusive control of, and the exclusive right to control the details of the services and work to be

performed hereunder, and all persons performing the same. COMPANY shall be solely responsible for the acts and omissions of its officers, agents, employees, contractors and subcontractors and the doctrine of respondeat superior shall not apply as between CITY and COMPANY, its officers, agents, employees, contractors and subcontractors. Nothing in this Contract shall be construed as creating a partnership or joint enterprise between CITY and COMPANY. No person performing any of the work and services described hereunder by COMPANY shall be considered an officer, agent, servant or employee of CITY. Further, it is specifically understood and agreed that nothing in this contract is intended or construed as creating a "Community of Pecuniary Interest" or an "Equal Right of Control" which would give rise to vicarious liability.

COMPANY shall be an independent contractor under this Contract and shall assume all of the rights, obligations and liabilities, applicable to it as such independent contractor hereunder. CITY does not have the power to direct the order in which the work is done. CITY shall not have the right to control the means, methods or details of COMPANY's work. COMPANY shall assume exclusive responsibility for the work. COMPANY is entirely free to do the work in its own way.

26. **Notice of Alleged Breach; Statutory Prerequisites:** As a condition precedent to filing suit for alleged damages incurred by an alleged breach of an express or implied provision of this Contract, COMPANY or its legal representative, shall give the City Manager, or any other reasonable official of CITY, notice in writing (consisting of one (1) original and seven (7) copies of notice attached to a copy of this Contract) of such damages, duly verified, within one hundred twenty (120) days after the same has been sustained. The discovery rule does not apply to the giving of this notice. The notice shall include when, where and how the damages occurred, the apparent extent thereof, the amount of damages sustained, the amount for which COMPANY shall settle, the physical and mailing addresses of COMPANY at the time and date the claim was presented and the physical and mailing addresses of COMPANY for the six (6) months immediately preceding the occurrence of such damages, and the names and addresses of the witnesses upon whom COMPANY relies to establish its claim; and a failure to provide such written notification within the time and manner provided herein shall exonerate, excuse and except CITY from any liability whatsoever. CITY is under no obligation to provide notice to COMPANY that COMPANY's notice is insufficient. CITY reserves the right to request additional information regarding the claim. Said additional information shall be supplied within thirty (30) days after receipt of notice.

The statutory prerequisites outlined herein constitute jurisdictional requirements pursuant to Section 271.154 of the Texas Local Government Code and Section 311.034 of the Texas Government Code. Notwithstanding any other provision to the contrary, COMPANY's failure to comply with the

requirements of this Section shall perpetually bar COMPANY's claim for damages under Chapter 271 of the Texas Local Government Code, and Section 311.034 of the Texas Government Code, regardless if CITY has actual or constructive notice or knowledge of said claim or alleged damages. COMPANY agrees that the requirements of this entire Contract are reasonable. The provisions and obligations of this Section shall survive the termination of this Contract.

27. **Consideration:** The terms of this Contract are supported by good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties named herein.

28. **Termination At Will:** CITY may terminate this Contract at will for no or any reason upon giving at least one hundred eighty (180) days written notice to COMPANY. The parties to this Contract understand and agree that it is in CITY's sole discretion to cancel the Contract during the term of the Contract without penalty to CITY. COMPANY has no expectation and has received no guarantees that this Contract will not be terminated before the end of the Contract term. The parties have bargained for the flexibility of terminating this Contract upon tender of the requisite notice at any time during the term of the Contract. All work and services under the Contract shall be suspended upon termination of the Contract becoming effective.

29. **Compliance:** COMPANY agrees that it shall comply with Texas Government Code Section 2252.908, *et seq.*, as amended. COMPANY agrees that it shall comply with Texas Local Government Code Section 176.006, *et seq.*, as amended.

30. To the extent that Sections 2271.002 and 2274.002 of the Texas Government Code (collectively, the "Anti-Boycott Statutes") apply to this Contract, Company hereby verifies:

- that Company does not boycott Israel and will not boycott Israel during the term of this Contract;
- that Company does not boycott energy companies and will not boycott energy companies during the term of this Contract; and
- that Company does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of this Contract against a firearm entity or firearm trade association.

To the extent that the Anti-Boycott Statutes do not apply to this Contract, such verification is not required, and Company shall be deemed to have not made such verification.

31. **Records Retention and Production of Information.** To the extent that this Contract constitutes a contract described by Section 552.371 of the Texas Government Code, COMPANY shall: (i) preserve all contracting information related to this Contract as provided by the records retention requirements

applicable to CITY for the duration of this Contract; (ii) promptly provide to CITY any contracting information related to the Contract that is in the custody or possession of COMPANY on request of CITY; and (iii) on completion of the Contract, either: (a) provide at no cost to CITY all contracting information related to the Contract that is in the custody or possession of COMPANY; or (b) preserve the contracting information related to the Contract as provided by the records retention requirements applicable to CITY.

32. **Public Information.** To the extent that this Contract is a contract described by Section 552.371 of the Texas Government Code, COMPANY agrees as follows in accordance with Section 552.372(b) of the Texas Government Code: The requirements of Subchapter J, Chapter 552, Government Code, may apply to this Contract, and COMPANY agrees that the contract can be terminated if COMPANY knowingly or intentionally fails to comply with a requirement of that subchapter.

33. **Conflict of Terms.** If a conflict of terms or language exists between: (i) any of the provisions of this Contract and (ii) any of the provisions contained in any exhibit(s) attached to this Contract, precedence shall be given to the provisions of this Contract. For the avoidance of any doubt, the provisions contained in this Contract shall supersede any and all conflicting provisions contained in any exhibit(s) attached hereto. Furthermore, the parties acknowledge and agree that any provision contained in an exhibit(s) attached to this Contract that imposes an additional express or implied obligation on CITY is hereby made void and of no force or effect. CITY's sole and exclusive obligations under this Contract are contained in the provisions of this Contract that precede the signature page(s), which evidences the parties' execution.

34. Company agrees that all iron or steel products produced through a manufacturing process and used in the project that is the subject of this Contract shall be produced in the United States in accordance with Government Code § 2252.202, et seq., as amended.

EXECUTED IN DUPLICATE the day and year first above mentioned.

THE CITY OF MIDLAND, TEXAS

By: _____
Tommy Gonzalez, City Manager

ATTEST

_____
Marcia Bentley-German, City Governance Officer/City Secretary

APPROVED ONLYAS TO FORM

_____
John Ohnemiller, City Attorney

COMPANY:

By: _____

Name: _____

Title: _____

STATE OF _____ §

§

COUNTY OF _____ §

BEFORE ME, the undersigned authority, on this ____ day of _____, 20____ personally appeared, _____, an officer of Onyx General Contractors, LLC, known to me to be the person and official whose name is subscribed to the forgoing instrument, and acknowledged to me that he executed the same as the act and deed of said corporation, for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the ____day of _____, 20____.

_____
Notary Public, State of

# EXHIBIT C

## *Bonding Requirements*

The successful bidder shall be required to furnish a Performance & Payment Bond* for bids in excess of $50,000.00, in an amount equal to one hundred percent (100%) of the total contract price, such bond to be executed in five (5) original counterparts by a Corporate Surety authorized to do business in the State of Texas and acceptable to the City of Midland. All bonds must be executed on forms contained in these contract documents. The form of agreement which the successful bidder, as contractor, will be required to execute is also included herewith. The form of agreement and the form of the bonds should be carefully examined by the bidder.

A certified check, cashier's check, bank money order, or irrevocable letter of credit issued by a bank satisfactory to the City, or a bidder's bond on the form provided, in the amount of five percent (5%) of the largest possible lump sum bid submitted, payable without recourse to the City, must accompany the bidder's proposal, as a guaranty that the bidder will enter a contract and execute the required payment bond and guaranty in the forms provided within fifteen (15) days after notice of award of contract to him. Bids or proposals without the required bid guaranty will not be considered. All bid sureties and payment bonds shall name the City of Midland as Obligee.

*A cash security such as a cashier's check or irrevocable letter of credit issued by a bank satisfactory to the City for 100 % of the contract amount may be supplied in lieu of the Performance and Payment Bonds. The check will be returned un-cashed upon satisfactory completion of the work and evidence of payment of all obligations due for the contract.

# PERFORMANCE BOND

THE STATE OF TEXAS §

COUNTY OF MIDLAND §

SURETY NO _____

KNOW ALL MEN BY THESE PRESENTS, THAT_____(Hereinafter called the Principal[s]), as Principal(s), and_____(Hereinafter called the Surety), as Surety, are held and firmly bound unto the City of Midland, Texas a home rule municipal corporation of Midland County, Texas, (hereinafter called the Obligee), in the amount of _____ DOLLARS ($_____) for the payment whereof the said Principal and surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the _____day of_____, 20___, for the furnishing of materials and equipment to perform all labor and work necessary for the construction of _____, specifically including in the scope of this work and bond, the additional maintenance guaranty provisions set forth in the contract conditions, which contract is hereby referred to and made a part hereof as fully and to the same extent as if copies at length herein, as well as the Principal's primary obligation to perform according to plans and specifications.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall faithfully perform the work in accordance with the plans, specifications, instructions to bidder, general and special conditions and other contract documents, including any addendum thereto, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED further that if any legal action be filed upon this Bond venue shall lie in Midland County, State of Texas.

Surety, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract, or to the work performed thereunder, or the plans, specifications or drawings accompanying the same, or any assignment of the contract as may be provided for in the instructions to bidders, shall in anywise affect its obligation on this Bond, and it does waive notice of any such change, extension of time, alteration or addition to the terms of the contract, assignment thereof, or the work to be performed thereunder.

IN WITNESS WHEREOF, the said Principal and surety do sign and seal this instrument, this _____ day of_____, 20___.

| | |
|---|---|
| _____ | _____ |
| Principal | Surety |
| By_____ | By _____ |
| Address_____ | Address _____ |
| _____ | _____ |
| _____ | _____ |

APPROVED AS TO FORM:

_____
City Attorney

NOTE: Attach Power of Attorney

Form Revised August 2012

# PAYMENT BOND

THE STATE OF TEXAS §

COUNTY OF MIDLAND §

SURETY NO _____

KNOW ALL MEN BY THESE PRESENTS, THAT _____ of the City of _____ of the County of _____ and State of Texas as Principal, and _____, as Surety, are held and firmly bound unto the City of Midland, Texas, as Obligee, in the amount of _____ DOLLARS ($_____) for the payment whereof the said Principal and Surety bind themselves, their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the _____ day of _____, 20___, for the furnishing of materials, equipment to perform all labor and work necessary for _____, hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, the condition of the obligation is that if the said Principal shall pay all claimants supplying labor and material to him or a subcontractor in the prosecution of the work provided for in said contract, then this obligation shall be null and void; otherwise, it is to remain in full force and effect.

Surety, for value received, stipulates and agrees that no change, extension of time alteration or addition to the terms of the contract, or to the work performed there under, or the plans, specifications of drawings accompanying the same, or any assignment of the contract as may be provided for in the instructions to bidders, shall in anywise affect its obligation on this Bond, and it does waive notice of any such change, extension of

time, alteration or addition to the terms of the contract, assignment thereof, or to the work to be performed there under.

IN WITNESS WHEREOF the said Principal and Surety have signed and sealed this instrument, this _____day of_____, 20___.

| | |
|---|---|
| _____ | _____ |
| Principal | Surety |
| By_____ | By _____ |
| Address_____ | Address _____ |
| _____ | _____ |
| _____ | _____ |

APPROVED AS TO FORM:

_____
City Attorney

NOTE: Attach Power of Attorney

Form Revised August 2012

**EXHIBIT D – BUILDING WAGE RATES rev 01-01-21**

General Decision Number: TX20210261 01/01/2021

Superseded General Decision Number: TX20200261

State: Texas

Construction Type: Building

County: Midland County in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

| Modification Number | Publication Date |
|---|---|
| 0 | 01/01/2021 |

BOIL0074-003 01/01/2017

| | Rates | Fringes |
|---|---|---|
| BOILERMAKER | $ 28.00 | 22.35 |

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ENGI0178-005 06/01/2020

| | Rates | Fringes |
|---|---|---|
| POWER EQUIPMENT OPERATOR | | |
| (1) Tower Crane | $ 32.85 | 13.10 |
| (2) Cranes with Pile Driving or Caisson Attachment and Hydraulic Crane 60 tons and above | $ 28.75 | 10.60 |
| (3) Hydraulic cranes 59 Tons and under | $ 32.35 | 13.10 |

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* IRON0084-011 06/01/2020

| | Rates | Fringes |
|---|---|---|
| IRONWORKER, ORNAMENTAL | $ 25.26 | 7.13 |

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* PLUM0404-001 09/01/2020

| | Rates | Fringes |
|---|---|---|
| PLUMBER | $ 26.05 | 8.81 |

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SUTX2014-037 07/21/2014

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 20.00 | 0.00 |
| CARPENTER | $ 13.82 | 0.00 |
| CEMENT MASON/CONCRETE FINISHER | $ 13.76 | 0.00 |
| ELECTRICIAN | $ 23.18 | 6.31 |
| INSULATOR - MECHANICAL (Duct, Pipe & Mechanical System Insulation) | $ 19.77 | 7.13 |
| IRONWORKER, REINFORCING | $ 12.27 | 0.00 |

| | | |
|---|---|---|
| IRONWORKER, STRUCTURAL | $ 22.16 | 5.26 |
| LABORER: Common or General | $ 11.80 | 0.00 |
| LABORER: Mason Tender - Brick | $ 11.38 | 0.00 |
| LABORER: Mason Tender - Cement/Concrete | $ 10.58 | 0.00 |
| LABORER: Pipelayer | $ 12.49 | 2.13 |
| LABORER: Roof Tearoff | $ 11.28 | 0.00 |
| OPERATOR: Backhoe/Excavator/Trackhoe | $ 14.25 | 0.00 |
| OPERATOR: Bobcat/Skid Steer/Skid Loader | $ 13.93 | 0.00 |
| OPERATOR: Bulldozer | $ 18.29 | 1.31 |
| OPERATOR: Drill | $ 16.22 | 0.34 |
| OPERATOR: Forklift | $ 14.83 | 0.00 |
| OPERATOR: Grader/Blade | $ 13.37 | 0.00 |
| OPERATOR: Loader | $ 13.55 | 0.94 |
| OPERATOR: Mechanic | $ 17.52 | 3.33 |
| OPERATOR: Paver (Asphalt, Aggregate, and Concrete) | $ 16.03 | 0.00 |
| OPERATOR: Roller | $ 12.70 | 0.00 |
| PAINTER (Brush, Roller, and Spray) | $ 15.00 | 0.73 |
| PIPEFITTER | $ 25.80 | 8.55 |
| ROOFER | $ 14.75 | 0.00 |
| SHEET METAL WORKER (HVAC Duct Installation Only) | $ 22.73 | 7.52 |
| SHEET METAL WORKER, Excludes HVAC Duct Installation | $ 19.50 | 0.00 |

| | | |
|---|---|---|
| TILE FINISHER | $ 11.22 | 0.00 |
| TILE SETTER | $ 14.74 | 0.00 |
| TRUCK DRIVER: Dump Truck | $ 12.39 | 1.18 |
| TRUCK DRIVER: Flatbed Truck | $ 19.65 | 8.57 |
| TRUCK DRIVER: Semi-Trailer Truck | $ 12.50 | 0.00 |
| TRUCK DRIVER: Water Truck | $ 12.00 | 4.11 |

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts. Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses

(29CFR 5.5 (a) (1) (ii)).

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**EXHIBIT D – Heavy and Highway Wage Rates rev 01-01-21**

"General Decision Number: TX20210002 01/01/2021

Superseded General Decision Number: TX20200002

State: Texas

Construction Types: Heavy and Highway

Counties: Armstrong, Carson, Crosby, Ector, Irion, Lubbock, Midland, Potter, Randall, Taylor and Tom Green Counties in Texas.

HEAVY & HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/gov contracts.

| Modification Number | Publication Date |
|---|---|
| 0 | 01/01/2021 |

* SUTX2011-002 08/02/2011

| | Rates | Fringes |
|---|---|---|
| CEMENT MASON/CONCRETE FINISHER (Paving & Structures) | $ 13.55 | |
| ELECTRICIAN | $ 20.96 | |
| FORM BUILDER/FORM SETTER Paving & Curb | $ 12.36 | |

Structures.....$ 13.52

LABORER
- Asphalt Raker.....$ 12.28
- Flagger.....$ 9.30
- Laborer, Common.....$ 10.30
- Laborer, Utility.....$ 11.80
- Work Zone Barricade Servicer.....$ 10.30

POWER EQUIPMENT OPERATOR:
- Asphalt Distributer.....$ 14.87
- Asphalt Paving Machine.....$ 13.40
- Broom and Sweeper.....$ 11.21
- Crane, Lattice Boom 80 Tons or Less.....$ 16.82
- Crawler Tractor Operator.....$ 13.96
- Excavator, 50,000 lbs or less.....$ 13.46
- Front End Loader Operator, Over 3 CY.....$ 12.77
- Front End Loader, 3CY or less.....$ 12.28
- Loader/Backhoe.....$ 14.18
- Mechanic.....$ 20.14
- Milling Machine.....$ 15.54
- Motor Grader, Rough.....$ 16.15
- Motor Grader, Fine.....$ 17.49
- Pavement Marking Machine.....$ 16.42
- Reclaimer/Pulverizer.....$ 12.85
- Roller, Asphalt.....$ 10.95
- Roller, Other.....$ 10.36
- Scraper.....$ 10.61
- Spreader Box.....$ 12.60

Servicer.....$ 13.98

Steel Worker (Reinforcing).....$ 13.50

TRUCK DRIVER
- Lowboy-Float.....$ 14.46
- Single Axle.....$ 12.74
- Single or Tandem Axle Dump.....$ 11.33
- Tandem Axle Tractor with Semi.....$ 12.49

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts. Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses

(29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate

includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

# IMPORTANT NOTICE

## Conflict Of Interest Reporting Requirements

Compliance with LOCAL GOVERNMENT CODE TITLE 5. MATTERS AFFECTING PUBLIC OFFICERS AND EMPLOYEES SUBTITLE C. MATTERS AFFECTING PUBLIC OFFICERS AND EMPLOYEES OF MORE THAN ONE TYPE OF LOCAL GOVERNMENT CHAPTER 176. DISCLOSURE OF CERTAIN RELATIONSHIPS WITH LOCAL GOVERNMENT OFFICERS; PROVIDING PUBLIC ACCESS TO CERTAIN INFORMATION.

**Form CIQ:** This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session. This questionnaire shall be filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a). By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code. A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

Bidders are responsible for filing Conflict of Interest form "CIQ" in accordance with the above referenced statute. Failure to do so is a class C Misdemeanor. Contracts or Purchase Orders awarded to a vendor that has violated this law is subject to termination at such time that the violation is discovered with no recourse to the City of Midland. The bidder will be subsequently removed from the bidders list for a minimum of one year.

When there is no known conflict of interest as defined by the statute, it is not necessary to file/submit the Form CIQ. The form must be submitted if a conflict is subsequently discovered.

By submitting a response to this request, vendor represents that it complies with the requirements of Chapter 176 of the Texas Local Government Code.

For a current list of the local government officers go to: http://www.midlandtexas.gov/

Upon completion of the form, sign and submit with bid or mail to:

City of Midland
Attn: City Secretary
PO Box 1152
Midland, Texas 79702

# CONFLICT OF INTEREST QUESTIONNAIRE

**FORM CIQ**

**For vendor doing business with local governmental entity**

**This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.**

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

| OFFICE USE ONLY |
| --- |
| Date Received |

1 **Name of vendor who has a business relationship with local governmental entity.**

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information is being disclosed.**

_____

Name of Officer

4 **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

5 **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7 _____ _____

Signature of vendor doing business with the governmental entity Date

## CONFLICT OF INTEREST QUESTIONNAIRE
## For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

**Local Government Code § 176.001(1-a):** "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;

(B) a transaction conducted at a price and subject to terms available to the public; or

(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

**Local Government Code § 176.003(a)(2)(A) and (B):**

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

**Local Government Code § 176.006(a) and (a-1)**

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

CITY OF MIDLAND

# Consideration of Location of Bidder's Principal Place of Business
## For Bids of $50,000 up to $100,000 for Services and $500,000 for Commodities
## Affidavit of Eligibility

Pursuant to Texas Local Government Code 271.9051, in purchasing real property, personal property that is not affixed to real property, or services, if the City receives one or more bids from a bidder whose principal place of business is in the City of Midland and whose bid is within five percent (5%) of the lowest bid price received by the City from a bidder who is not a resident of the City of Midland, the City may enter into a contract with:

(1) the lowest bidder; or

(2) the bidder whose principal place of business is in the City of Midland if the City Council determines, in writing, that the local bidder offers the City the best combination of contract price and additional economic development opportunities for the City of Midland created by the contract award, including the employment of residents of the City of Midland and increased tax revenues to the City of Midland.

In order to receive consideration, bidders must submit this affidavit to:

Erika Martinez
Purchasing Manager
City of Midland
300 N. Loraine St.,
PO BOX 1152
Midland, TX 79702-1152

*Complete all areas below. Incomplete affidavits may be rejected.*

Local Business Name: _____

Local Address (must be within the City limits): _____

1. Is the above address the principal place of business for the business named above? ☐ Yes ☐ No
2. How many residents of the City of Midland are employed at the above business location? _____
3. Year your business was established in the City of Midland: _____
4. If you collect sales tax for ANY class of customer, provide the following Reseller information:

   Reseller Permit Number: _____

   Company Name and Address (as it appears on permit):

   _____

   _____

   _____
5. Does your business have more than one office in the State of Texas? ☐ Yes ☐ No
   If Yes, identify the office location considered as the point-of sale for the purpose of sales tax calculation:

   _____

   _____
6. Was the local business required to pay business and/or real property tax for the most recent tax year?

   ☐ Yes ☐ No

   If Yes, did the local business pay any of this tax to the City of Midland? ☐ Yes ☐ No

Under penalty of perjury, the undersigned states that the foregoing statements are true and correct. It is further acknowledged that any person, firm, corporation or entity intentionally submitting false information to the City in an attempt to qualify for eligibility shall be prohibited from bidding on City of Midland products and services for a period of one (1) year.

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

IMPORTANT: READ CAREFULLY BEFORE MAKING BID
GENERAL CONDITIONS OF BIDDING

1. All bids are to be submitted as specified in the procurement document(s).

2. Each Bidder is requested to provide: Descriptive literature clearly marked to show each item on this bid. Any catalog or manufacturer's reference in this proposal is descriptive, but not restrictive, and is used only to indicate type and quality. If, however, the bidder proposes similar but not identical terms, he must furnish all particulars. If no mention is made of any exceptions, it is assumed that he is bidding on the article specified and not on an approved equal and he will be required to deliver exact article specified.

3. Prices should be itemized. (Indicate unit price and extend to show total price.) In case of discrepancy between the unit price and the extension, the unit price shall govern.

4. Unit price for each item offered shall include all discounts; e.g., trade, seasonal, etc. with net 30 days payment terms. Discounts shall not be shown as such but shall be incorporated in the base bid price. Any bid showing discounts will be considered an alternate bid. The City of Midland will not be responsible for any goods delivered without a purchase order number.

5. If the Contract is awarded, it will be awarded to either the lowest responsible bidder, or to the bidder who provides goods or services at the best value for the City of Midland. In determining the best value for the City of Midland, the City of Midland may consider the criteria enumerated in Section 252.043 of the Texas Local Government Code. The City of Midland reserves the right to award by item or by total bid, or to reject any or all bids or parts of bids. Further, the City of Midland reserves all rights granted by Section 271.027 of the Texas Local Government Code. The City of Midland reserves the right to award the bid to the lowest responsible bidder.

6. Time of proposed delivery shall be stated in number of calendar days.

7. NOTE: The City of Midland, Texas is exempt from all Federal, State and City tax. Please do not include these taxes in your bid price or invoice. Taxable items must be so designated, and the City will supply vendor with a Tax Exemption Certificate, properly executed.

8. All items are to be delivered, unloaded and stacked at the location indicated on the Bid Request and Purchase Order.

9. All items are to be delivered F.O.B. to the City of Midland, Texas with freight prepaid and included in the bid.

10. Detailed specifications rule over General specifications (headings, etc.)

11. The City of Midland reserves the right to remove a company from the bid list for (1) continued failure to respond to request for bids, (2) failure to deliver merchandise within promised time, or (3) delivery of substandard merchandise.

12. No officer or employee of the City shall have a financial interest, direct or indirect, in any contract with the City, or be financially interested, directly or indirectly, in the sale to the City of any lands, materials, supplies or services except as allowed under chapter 176 of the Local Government Code. Form CIQ shall be submitted and placed on file with the City of Midland.

13. The City shall determine the most advantageous bid for the City and accept the proposal of the responsible party submitting the lowest and/or most advantageous bid or reject any and all bids.

14. The City of Midland, Texas may consider as informal any bid not prepared and submitted in accordance with the provisions hereof, and may waive, in its sole discretion, any informalities.

STANDARD PURCHASE TERMS AND CONDITIONS
PURCHASING DIVISION, CITY OF MIDLAND, TEXAS

"Seller", as used herein, has the same meaning as "Company". "Buyer", as used herein, has the same meaning as "City".

Seller and Buyer agree as follows:

1. SELLER TO PACKAGE GOODS - Seller will package goods in accordance with good commercial practice. Each shipping container shall be clearly and permanently marked as follows; (a) Seller's name and address, (b) Consignee's name, and address, and purchase order number, (c) Container number and total number of containers, e.g. box 1 of 4 boxes, and (d) the number of the container bearing the packing slip. Seller shall bear cost of packaging unless otherwise provided. Goods shall be suitably packed to secure lowest transportation costs and to conform with requirements of common carriers and any applicable specifications. Buyer's count or weight shall be final and conclusive on shipments not accompanied by packing lists.

2. SHIPMENT UNDER RESERVATION PROHIBITED - Seller is not authorized to ship the goods under reservation and no tender of a bill of lading will serve as a tender of goods.

3. TITLE & RISK OF LOSS - The title and risk of loss of the goods shall not pass to Buyer until Buyer actually receives and takes possession of the goods at the point or points of delivery in Midland, Texas.

4. NO REPLACEMENT OF DEFECTIVE TENDER - Every tender or delivery of goods must fully comply with all provisions of this contract as to time of delivery, quality and the like. If a tender is made which does not fully conform, this shall constitute a breach and Seller shall not have the right to substitute a conforming tender, provided, where the time for performance has yet expired, the Seller may reasonably notify Buyer of his intention to cure and may then make a conforming tender within the contract time but not afterward.

5. PLACE OF DELIVERY - The place of delivery shall be that set forth in the block of the purchase order entitled "deliver to".

6. INVOICES - Seller shall submit separate ORIGINAL invoices, on each purchase order. Invoices shall indicate the purchase order number. All invoices must be mailed to City of Midland, Accounts Payable, P.O. Box 1152, Midland, TX 79702-1152. Payment will be made within 30 days from the date the invoice and properly executed receiving documents are received by City of Midland, Accounts Payable at the above address. Invoices sent to any other address will delay payment.

7. GRATUITIES - The buyer may, by written notice to the seller, cancel this contract without liability to Seller, if it is determined by Buyer that gratuities, in the form of entertainment, gifts, or otherwise, were offered or given by the seller, or any agent or representative of the Seller, to any officer or employee of the City of Midland with a view toward securing a contract or securing favorable treatment with respect to performing of such a contract. In the event this contract is cancelled by Buyer pursuant to this provision, Buyer shall be entitled, in addition to any other rights and remedies, to recover or withhold the amount of the cost incurred by Seller in providing such gratuities.

8. WARRANTY - PRICE -

a. The price to be paid by the Buyer shall be that contained in Seller's bid which Seller warrants to be no higher than Seller's current prices on order by others for products of the kind and specifications covered by this agreement for similar quantities under similar or like conditions and methods of purchase. In the event Seller breaches this warranty, the prices of the items shall be reduced to the Seller's current prices on order by others, or in the alternative, Buyer may cancel this contract without liability to Seller for breach or Seller's actual expense.

b. The Seller warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for commission, percentage, brokerage, or contingent fee excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Seller for the purpose of securing business. For breach or violation of this warranty the Buyer shall have the right or rights to cancel this contract without liability and to deduct from the contract price, or otherwise recover the full amount of such commission, percentage, brokerage or contingent fee.

9. WARRANTY - PRODUCT - Seller shall not limit or exclude any implied warranties and any attempt to do so shall render this contract voidable at the option of the Buyer. Seller warrants that the goods furnished will conform to the specification, drawings, and description listed in the bid invitation, and to the sample(s) furnished by Seller, if any. In the event of a conflict between the specifications, drawings and descriptions, the specifications shall govern.

10. SAFETY WARRANTY - Seller warrants that the product sold to Buyer shall conform to the standards promulgated by the U.S. Department of Labor under the Occupational Safety and Health Act of 1970. In the event the product does not conform to OSHA standards, Buyer may return the product for correction or replacement at the Seller's expense. In the event Seller fails to make the appropriate correction within a reasonable time, correction made by buyer will be at Seller's expense.

11. RIGHT OF INSPECTION - Buyer shall have the right to inspect the goods at delivery before accepting them.

12. CANCELLATION - Buyer shall have the right to cancel for default all or any part of the undelivered portion of this order if Seller breached any of the terms hereof including warranties of Seller if the Seller becomes insolvent or commits acts of bankruptcy. Such right of cancellation is in addition to and not in lieu of any other remedies which Buyer may have in law or equity.

13. TERMINATION - The performance of work under this order may be terminated in whole, or in part by the Buyer in accordance with this provision. Termination of work hereunder shall be effected by the delivery to Seller of a "Notice of Termination" specifying the extent to which performance of work under the order is terminated and the date upon which such termination becomes effective. Such right of termination is in addition to and not in lieu of the rights of Buyer set forth in Clause 13, herein.

14. FORCE MAJEURE - Neither party shall be held responsible for losses, resulting if the fulfillment of any terms or provisions of this contract is delayed or prevented by any cause not within the control of the party whose performance is interfered with, and which by the exercise of reasonable diligence said party is unable to prevent.

15. ASSIGNMENT - DELEGATION - No right or interest in this contract shall be assigned or delegation of any obligation made by Seller without the written permission of the Buyer. Any attempted assignment or delegation by the Seller shall be wholly void and totally ineffective for all purposes unless made in conformity with this paragraph.

16. MODIFICATIONS - This contract can be modified or rescinded only by a writing signed by both of the parties or their duly authorized agents.

17. INTERPRETATION - PAROL EVIDENCE - This writing, plus any specifications for bids and performance provided by Buyer in its advertisement for bids, is intended by the parties as a final expression of this agreement. No course of prior dealings between the parties and no usage of the trade shall be relevant to supplement or explain any term used in this agreement. Acceptance or acquiescence in a course of performance rendered under this agreement shall not be relevant to determine the meaning of this agreement even though the accepting or acquiescing party has knowledge of the performance and opportunity for objection. Whenever a term defined by the Uniform Commercial Code is used in this agreement, the definition contained in the Code is to control.

18. ADVERTISING - Seller shall not advertise or publish without Buyer's prior consent the fact that Buyer has entered into the contract, except to the extent necessary to comply with proper requests for information from an authorized representative of the federal, state or local government.

19. RIGHT TO ASSURANCE - Whenever one party to the contract in good faith has reason to question the other party's intent to perform he may demand that the other party give written assurance of this intent to perform. In the event that a demand is made and no assurance is given within five (5) days, the demanding party may treat this failure as an anticipatory repudiation of the contract.

20. PROTECTION AGAINST ROYALTIES OR PATENT INFRINGEMENT - The Seller shall pay all royalties and license fees, and shall provide for the use of any design, device, material or process covered by letters patent or copyright by suitable legal agreement with Patentee or Owner thereof. The Seller shall defend all suits or claims for infringement of any patent or copyrights and shall indemnify and save the Buyer harmless from any loss on account thereof, except that Buyer shall defend all such suits and claims and shall be responsible for all such loss when a particular design, device, material or process is allowed to the Seller, the Seller shall indemnify and save Buyer harmless from any loss on account thereof. If the material or process specified or required by Buyer is an infringement, the Seller shall be responsible for such loss unless he promptly gives written notice to the buyer of such infringement.

21. TIME - It is hereby expressly agreed and understood that time is of the essence for the performance of this contract, and any failure by contract to meet the time specifications of this agreement will cause Seller to be in default of this agreement.

22. TAX - The City of Midland is exempt from all Federal, State and City tax. Please do not include these taxes in your bid price or invoice. Taxable items must be so designated, and the City will supply vendor with a Tax Exemption Certificate, properly executed.

23. **INSURANCE –**

**The following provisions apply unless the agreement is for the supply of goods only:**

Seller shall at all times during the term of this agreement maintain and keep in full force and effect insurance in the following types and minimum amounts with companies authorized to do business in the State of Texas:

| | |
|---|---|
| Commercial General Liability (including Contractual liability): | |
| -Personal Injury: | $1,000,000.00 per person |
| | $1,000,000.00 per occurrence |
| -Property Damage: | $500,000.00 per occurrence |
| Business Automobile Liability: | $250,000.00 combined single limit- |
| | Personal Injury and Property Damage |
| Worker's Compensation: | Statutory limits |
| Employers' Liability: | $500,000.00 per accident or occurrence |

The Commercial General Liability shall be on a per project or policy aggregate, including completed operations, and shall be on an occurrence basis.

The Workers' Compensation coverage provided by Seller shall inure to the benefit of employees injured during the course and scope of their employment by Seller pursuant to this agreement.

The Business Automobile Liability insurance provided by Seller shall cover any auto for bodily injury and property damage, including owned vehicles, hired and non-owner vehicles, and employee non-ownership, and the amount of such policy shall be a minimum of $250,000.00 covering any vehicle used for the execution of the work that is the subject of this agreement.

All insurance required pursuant to this agreement, except for Worker's Compensation Insurance, shall name the Buyer as an additional insured on a claims occurred basis. All insurance required pursuant to this agreement, including Worker's Compensation Insurance, shall provide for a waiver of subrogation as to the Buyer.

The parties agree that, prior to the execution of the agreement, Seller shall provide one or more certificates of insurance showing that the requirements of this article have been met, and specifically containing, without limitations, the following endorsement:

***"The City of Midland is included as an additional insured, on a claims occurred basis, on all policies except for Worker's Compensation. The Seller and Insurer hereby waive all rights of subrogation with respect to claims against the City of Midland, its agents, employees and officers, on all policies of insurance."***
Buyer shall be provided the notice by Seller's insurance provider not later than thirty (30) days prior to any reduction or termination of such coverage. Buyer shall not be required to provide any insurance whatsoever pursuant to this agreement.

Seller shall contractually require all contractors, subcontractors, and sub-subcontractors that work on any portion of the work that is the subject of this agreement to obtain insurance coverage that meets or exceeds the policy requirements and minimum amounts specified herein. All contractors, subcontractors, and sub-subcontractors shall obtain insurance policies that provide blanket waivers of subrogation in favor of the City of Midland and policies that name the City of Midland as an additional insured on a claims occurred basis (except workers compensation).

24. ASSIGNMENT - Seller shall not, either directly or indirectly, assign all or any part of this agreement or any interest, right or privilege herein, without the prior written consent of the Buyer. The issue on whether or not to grant consent to an assignment is in the sole discretion of the Buyer.

25. **RELEASE - NOTWITHSTANDING ANY OTHER PROVISIONS, SELLER HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES BUYER, BUYER'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES, OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH SELLER HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKINGS CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS, OR BUYER'S NEGLIGENCE.**

26. GOVERNING LAW AND VENUE - This agreement shall be governed by the laws of the State of Texas. All performance and payment made pursuant to this agreement shall be deemed to have occurred in Midland County, Texas. Exclusive venue for any claims, suits or any other action arising from or connected in any way to this agreement or the performance of this agreement shall be in Midland County, Texas. The obligations and undertakings of each of the parties to this agreement shall be deemed to have occurred in Midland County, Texas.

27. INDEPENDENT CONTRACTOR - It is expressly understood and agreed that Seller shall perform all work and services described herein as an independent contractor and not as an officer, agent, servant or employee of the Buyer; that Seller shall have exclusive control of and the exclusive right to control the details of the services and work performed hereunder, and all persons performing the same; and shall be solely responsible for the acts and omissions of its officers, agents, employees, contractors and subcontractors; that the doctrine of respondeat superior shall not apply as between Buyer and Seller, its officers, agents, employees, contractors and subcontractors; and that nothing herein shall be construed as creating a partnership or joint enterprise between Buyer and Seller. No person performing any of the work and services described hereunder by Seller shall be considered an officer, agent, servant or employee of the Buyer. Further, it is specifically understood and agreed that nothing in this agreement is intended or shall be construed as creating a "Community of Pecuniary Interest" or "An Equal Right of Control" which would give rise to vicarious liability. Seller shall be an independent contractor under this agreement and shall assume all of the rights, obligations and liabilities, applicable to it as such independent contractor hereunder. The Buyer does not have the power to direct the order in which the work is done. The Buyer shall not have the right to control the means, methods or details of the Seller's work. Seller shall assume exclusive responsibility for the work. Seller is entirely free to do the work in its own way.

28. NOTICE OF ALLEGED BREACH; STATUTORY PREREQUISITES - As a condition precedent to filing suit for alleged damages incurred by an alleged breach of an express or implied provision of this agreement, Seller or his legal representative, shall give the City Manager, or any other reasonable official of the Buyer, notice in writing (consisting of one original and seven copies of notice attached to a copy of this agreement) of such damages, duly verified, within one-hundred-twenty (120) days after the same has been sustained. The discovery rule does not apply to the giving of this notice. The notice shall include when, where and how the damages occurred, the apparent extent thereof, the amount of damages sustained, the amount for which the Seller will settle, the physical and mailing addresses of Seller at the time and date the claim was presented and the physical and mailing addresses of Seller for the six months immediately preceding the occurrence of such damages, and the names and addresses of the witnesses upon whom the Seller relies to establish its claim; and a failure to so notify the City Manager within the time and manner provided herein shall exonerate, excuse and except the Buyer from any liability whatsoever. The Buyer is under no obligation to provide notice to Seller that Seller's notice is insufficient. Buyer reserves the right to request reasonable additional information regarding the claim. Said additional information shall be supplied within thirty (30) days after receipt of notice.

The statutory prerequisites outlined herein constitute jurisdictional requirements pursuant to Section 271.154 of the Texas Local Government Code and Section 311.034 of the Texas Government Code. Notwithstanding any other provision, Seller's failure to comply with the requirements herein shall perpetually bar Seller's claim for damages under Chapter 271 of the Texas Local Government Code, and Section 311.034 of the Texas Government Code, regardless if Buyer has actual or constructive notice or knowledge of said claim or alleged damages. Seller agrees that the requirements of this entire agreement are reasonable.

29. **INDEMNITY (NOT APPLICABLE TO PURCHASE AGREEMENTS) - SELLER WILL INDEMNIFY AND HOLD HARMLESS AND DEFEND BUYER AND ALL OF BUYER'S OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, LOSSES, PROPERTY DAMAGE AND EXPENSES OF ANY CHARACTER WHATSOEVER, INCLUDING REASONABLE ATTORNEY'S FEES,**

**BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ON ACCOUNT OF ANY NEGLIGENT ACT OF SELLER,** its agents or employees, or any subcontractor, arising out of, or resulting from, Seller's use of, or activities on, the agreement premises, and Seller will be required to pay any judgment with costs which may be obtained against Buyer or any of its officers, agents or employees, including reasonable attorney's fees.

**SELLER SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND BUYER AND ALL OF BUYER'S OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, ACCIDENTAL DEATH, PERSONAL INJURIES, PROPERTY DAMAGE, LOSSES, AND EXPENSE OF ANY CHARACTER WHATSOEVER INCLUDING REASONABLE ATTORNEY'S FEES, BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ON ACCOUNT OF ANY NEGLIGENT ACT OF BUYER, BUYER'S OFFICERS, AGENTS AND EMPLOYEES, WHETHER SUCH NEGLIGENT ACT WAS THE SOLE PROXIMATE CAUSE OF THE INJURY OR DAMAGE OR A PROXIMATE CAUSE JOINTLY AND CONCURRENTLY WITH SELLER OR SELLER'S EMPLOYEES, AGENTS OR SUBCONTRACTORS NEGLIGENCE, IN THE EXECUTION, SUPERVISION AND OPERATIONS GROWING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF THIS AGREEMENT AND SELLER WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST BUYER OR ANY OF BUYER'S OFFICERS, AGENTS OR EMPLOYEES, INCLUDING ATTORNEY'S FEES.**

30. SOVEREIGN IMMUNITY - By executing this agreement the Buyer is not waiving its right of sovereign immunity. The Buyer is retaining its immunity from suit. The Buyer is not granting consent to be sued by legislative resolution or action. **THERE IS NO WAIVER OF SOVEREIGN IMMUNITY.**

31. THIRD PARTY BENEFICIARY - The Buyer's approval of this agreement does not create a third party beneficiary. There is no third party beneficiary to this agreement. No person or entity who is not a party to this agreement shall have any third party beneficiary or other rights hereunder.

32. **ATTORNEY FEES - BY EXECUTING THIS AGREEMENT, SELLER AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST THE BUYER, REGARDING THE AWARD OF ATTORNEY'S FEES, WHICH ARE IN ANY WAY RELATED TO THE AGREEMENT, OR THE CONSTRUCTION, INTERPRETATION OR BREACH OF THE AGREEMENT. THE SELLER SPECIFICALLY AGREES THAT IF THE SELLER BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS AGREEMENT, THE CONSTRUCTION, INTERPRETATION, VALIDITY OR BREACH OF THIS AGREEMENT, INCLUDING BUT NOT LIMITED TO ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET. SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, THE SELLER AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY'S FEES TO WHICH SELLER MIGHT OTHERWISE BE ENTITLED.**

**SELLER AGREES THAT THIS IS THE VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY EXISTING KNOWN RIGHT. SELLER ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THE AGREEMENT. THE SELLER FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN THE BUYER AND THE SELLER. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.**

**THE SELLER AND BUYER ARE RELYING ON THEIR OWN JUDGMENT. EACH PARTY HAD THE OPPORTUNITY TO DISCUSS THIS AGREEMENT WITH LEGAL COUNSEL PRIOR TO ITS EXECUTION.**

33. CONSIDERATION - The terms of this agreement are supported by good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties named herein.

34. CERTIFICATION - In accordance with the Texas Local Government Code, the City of Midland Department of Facilities and Fleet Management does hereby certify that the City of Midland is in compliance with Sections 252, 271 and all applicable sections of the Texas Local Government Code and other state law as it applies to procurement and contracting issues.

35. FEDERAL WAGE REQUIREMENTS - If applicable, the Davis-Bacon Act, 29 CFR 5.5, and any related acts or regulations are hereby incorporated by reference and made a part of this agreement and all terms and requirements under said laws, by such incorporation, are made terms and requirements of this agreement, to which the parties to this agreement have agreed to be bound.

36. COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS - Seller shall at all times during the term of this agreement comply with applicable federal, state, and local laws regarding Seller's activities pursuant to this agreement, including but not limited to all applicable sections of the Municipal Code of Midland, Texas, as may be amended, said sections being hereby incorporated by reference and made a part of this agreement for all legal purposes. Failure to abide by any such law mentioned herein constitutes grounds for the immediate termination of this agreement.

# SECTION 01 10 00 - SUMMARY

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Work covered by Contract Documents.
   2. Contractor's use of site and premises.
   3. Permits.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Identification: West and North Citizens' Collection Stations.
B. Location: Midland, Texas.
C. Owner: City of Midland.
D. Work consists of construction of two citizen collection station facilities. Facility construction includes HMAC and concrete roadways, cast-in-place retaining wall, concrete paved parking lot, electrical services, light poles, and building construction. Building construction includes erection of prefabricated metal building, HVAC, plumbing, electrical, and interior finish.

1.3 CONTRACTOR'S USE OF SITE AND PREMISES

A. Limits on Use of Site:
   1. Owner occupancy.
   2. Work by others.
B. Construction Operations: Limited to areas noted on Drawings.
C. Time Restrictions for Performing Work:
   1. 7:00 a.m. to 7:00 p.m. Monday through Friday.
D. Utility Outages and Shutdowns:
   1. Coordinate and schedule utility outages/shutdown.
   2. Allowed only as preiously agreed upon.
   3. Schedule at least 1 week before outage/shutdown.
   4. Submit early request of outage/shutdown to Engineer itemizing dates, times, and durations.

1.4 PERMITS

A. Furnish all necessary permits for construction of Work including:
   1. Building permit.
   2. Stormwater permit.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 20 00 - PRICE AND PAYMENT PROCEDURES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Inspection and testing allowances.
   2. Schedule of Values.
   3. Application for Payment.
   4. Change Procedures.
   5. Measurement and payment - unit prices.
   6. Alternates.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 UNIT PRICES

A. Authority: Measurement methods delineated in Section 01 22 00 "Measurement and Payment."

B. Take measurements and compute quantities. Engineer to verify.

C. Unit Quantities: Quantities and measurements indicated in Bid Form are for Contract purposes only and should be verified by Proposer. Quantities and measurements supplied or placed in Work determine payment. When actual Work requires more or fewer quantities than those indicated, provide required quantities at contracted unit prices.

D. Payment Includes:
   1. Full compensation for required labor, products, tools, equipment, plant, transportation, services, and incidentals;
   2. Erection, application, or installation of Work item; and
   3. Overhead and profit.

E. Final payment for Work governed by unit prices will be made based on actual measurements and quantities accepted by Engineer multiplied by unit price for Work incorporated in or made necessary by Work.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION (Not Used)

END OF SECTION

# SECTION 01 22 00 – MEASUREMENT AND PAYMENT

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Procedures for measurement and payment.
   2. Mobilization demobilization.
   3. Unit price items.
   4. Lump sum items.
   5. Proposal Form-specific payment items.

B. Related Requirements:
   1. Section 00 42 00 "Proposal Form."
   2. Other Division 01 Specification Sections apply to Work of the Section.

### 1.2 PROCEDURES FOR MEASUREMENT AND PAYMENT

A. Unit price Proposal on each item as stated in Section 00 42 00 "Proposal Form" includes furnishing all labor, superintendence, machinery, equipment, and materials except as otherwise specified, necessary, or incidental to complete various item of Work per Drawings and Specifications.

B. Cost of Work or materials shown on Drawings, or called for in Specifications, and on which no separate payment is made included in Proposal prices on various pay items.

C. Payment not made for any items not complete, including all associated incidental Work.

### 1.3 UNIT PRICE ITEMS

A. Unit price items, not otherwise included herein, paid at a unit price per unit.

B. Payment will include all Work and material for installing unit price item as specified.

C. Measurement made in units shown on Section 00 42 00 "Proposal Form."

### 1.4 LUMP SUM ITEMS

A. Lump sum items include all Work and materials for installing lump sum item as specified.

B. Payment based on percentage complete basis as agreed by Engineer and Contractor.

C. Payment includes all Work and material for installing lump sum Proposal item as specified.

### 1.5 PROPOSAL FORM-SPECIFIC PAYMENT ITEMS

A. Proposal Item 1: Mobilization (5 percent Maximum):
   1. Measurement: Lump Sum Basis.
   2. Payment: Made for mobilizing and demobilizing all equipment, tools, insurance, bonds, and all other job-related items to and from the job site. Price will be on a lump sum basis and shall include all equipment, labor, materials, superintendence, and all incidentals necessary to become fully mobilized at the start of the Project and demobilized when Work is complete. Mobilization related expenses include Contractor's cost for the following: obtaining and setting up construction office

facilities, obtaining and paying for electric power required for construction, providing and maintaining dust control over the Project working area, temporary fencing, and all other incidentals required for Contractor to complete mobilization. This Proposal item shall not exceed 5 percent of the Contract price.

B. Proposal Item 2: Erosion Control:
   1. Measurement: Lump Sum Basis.
   2. Payment: Made for all costs associated with providing all labor, equipment, materials, and supervision necessary to implement an approved traffic control plan. Payment shall also include all costs associated with grading and constructing any necessary temporary bypass roads needed to keep the flow of traffic moving during construction operations.

C. Proposal Item 3: Excavation:
   1. Measurement: Per Cubic Yard Basis.
   2. Payment: Made for providing all labor, equipment, materials, supplies, etc., necessary to excavate the road and drainage ponds to the elevations and grades shown on the Plans. Subgrade preparation to receive concrete structures is incidental to this Proposal item. No payment for Work outside limits indicated on Drawings.

D. Proposal Item 4: Embankment (Fill):
   1. Measurement: Per Cubic Yard Basis.
   2. Payment: Made for providing all labor, equipment, materials, supplies, etc., necessary to fill the areas shown to construct the access road and drainage channels as shown. Subgrade preparation to receive concrete structures is incidental to this Proposal item. No payment for Work outside limits indicated on Drawings.

E. Proposal Item 5: Furnish and Install 3-Inch-Thick Type "B" HMAC, 9-Inch Base Course, 12-Inch Subgrade:
   1. Measurement: Per Square Yard Basis.
   2. Payment: Made for providing and installing 3-inch HMAC Type B pavement, 9-inch base course and preparation of 12 inches of subgrade. Pavement shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install the pavement sections to the grades shown on the Plans in accordance with Specifications. No payment for Work outside limits indicated on Drawings.

F. Proposal Item 6: Furnish and Install 8-Inch-Thick Concrete Pavement and Reinforcement, 6-Inch Base Course, 12-Inch Subgrade:
   1. Measurement: Per Square Yard Basis.
   2. Payment: Made for providing and installing 8-inch concrete pavement and reinforcement, 6-inch base course and preparation of 12 inches of subgrade. Pavement shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install the pavement sections to the grades shown on the Plans in accordance with the Specifications. 6-inch ramps, transformer pad, condensing unit pad, bollards, and wheel stops are incidental to this Proposal item. No payment for Work outside limits indicated on Drawings.

G. Proposal Item 7: Concrete Drainage Gutter:
   1. Measurement: Per Linear Foot.
   2. Payment: Made for the concrete drainage gutters as detailed on the plans. Pavement shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install the pavement sections to the grades shown on the Plans in accordance with the Specifications.

H. Proposal Item 8: Concrete Retaining Wall and Steel Rails:
   1. Measurement: Per Linear Foot Basis.
   2. Payment: Made for providing and installing the concrete retaining wall. Payment shall include all costs associated with providing all labor, equipment, materials, supervision, excavation, fine grading, curing, welding, painted steel posts and rails, steel embed plates, steel C-channels, control joints, backfill, and all other appurtenances necessary to install the retaining wall as shown on the Plans and in accordance with Specifications.

I. Proposal Item 9: Entrance Gate:
   1. Measurement: Per Linear Foot Basis.
   2. Payment: Made for providing and installing the Wrought Iron/Steel Gate at the Entrance. Payment shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install the shown on the Drawings and in accordance with Specifications.

J. Proposal Item 10: Exit Gate:
   1. Measurement: Per Linear Foot Basis.
   2. Payment: Made for providing and installing a wrought iron/steel swing gate at exit. Payment shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install as shown on Drawings and in accordance with Specification.

K. Proposal Item 11: Six-Foot Chain Link Fence:
   1. Measurement: Per Linear Foot Basis.
   2. Payment: Made for providing and installing the chain link fence with e-strand barb wire and screening along property boundary on a linear foot basis. Payment shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install the shown on the Drawings and in accordance with Specifications. Sliding gates are incidental to this Proposal item.

L. Proposal Item 12: Pavement Markings and Striping:
   1. Measurement: Per Each Basis.
   2. Payment: Made for providing and installing pavement marking symbols. Payment shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install the pavement markings as shown on the Plans and in accordance with Specifications.

M. Proposal Item 13: Schedule 80 Waterline.
   1. Measurement: Per Linear Foot Basis.
   2. Payment: Made for providing and installing the Schedule 80 pipe as shown on Plans. Payment shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install as shown on the Drawings and in accordance with Specifications. No payment for Work outside limits indicated on Drawings.

N. Proposal Item 14: SDR 35 Sewer Line.
   1. Measurement: Per Linear Foot Basis.
   2. Payment: Made for providing and installing the SDR 35 pipe as shown on Plans. Payment shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install as shown on the Drawings and in accordance with the Specification. No payment for Work outside limits indicated on Drawings.

O. Proposal Item 15: Traffic Signage:
   1. Measurement: Per Each Basis.
   2. Payment: Made for the installation of traffic signage. Payment shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install traffic signage. Such payment shall be compensation for the complete performance of the work in accordance with the Drawings and provisions of these Specifications.

P. Proposal Item 16: 40-Foot by 60-Foot Metal Building:
   1. Measurement: Lump Sum Basis.
   2. Payment: Made for costs associated with providing all labor, equipment, materials, and supervision necessary to anchor the structure on site on a lump sum basis. Payment shall include all costs associated with providing all labor, equipment, and supervision necessary.

Q. Proposal Item 17: Electrical Site Work:
   1. Measurement: Lump Sum Basis.
   2. Payment: Made for the electrical site improvements. Electrical Work includes grounding system, service pole, weather head, riser, meter can, main disconnect, fusible/non-fusible disconnects, electrical racks, distributions panels, dry-type transformers, in-ground pull boxes, conduits, trenching and backfill, wires/cables, area light fixtures with poles and foundations, interior and exterior light fixtures, receptacles, light switches, data connection points, all building preparations for camera locations, installation of Owner-provided compactor and guard shack, installation of any other electrical items indicated on Contract Drawings, and all associated terminations. Payment includes full compensation for complete performance of the Work in accordance with the Drawings and provisions of these Specifications.

R. Proposal Item 18: Septic Tank:
   1. Measurement: Lump Sum Basis.
   2. Payment made for all costs associated with providing the system design, and all labor, equipment, materials, and supervision necessary to install septic tank, absorptive field, and all necessary piping, fittings, clean outs, and valves.

S. Proposal Item 19: Water Well:
   1. Measurement: Lump Sum Basis.
   2. Payment made for all costs associated with providing all required materials to generate water from the existing well at the facility and connect to waterline installed as part of Proposal Item 13.

T. Proposal Item 20: Mobilization (5 percent maximum):
   1. Measurement: Lump Sum Basis.
   2. Payment: Made for mobilizing and de-mobilizing, tools, insurance, bonds, and all other job-related items to and from the Job Site. Price will be on a lump sum Basis and shall include all equipment, labor, materials, superintendence, and all incidentals necessary to become fully mobilized at the start of Project, and demobilized when Work is complete. Mobilization related expenses includes Contractor's cost for the following: obtaining and setting up construction office facilities, obtain and paying for the electrical power required for construction, providing and maintaining dust control over the Project working area, temporary fencing, and all other incidentals required for Contractor to complete mobilization. This Proposal item shall not exceed 5 percent of the Contract price.

U. Proposal Item 21: Erosion Control:
   1. Measurement: Lump Sum Basis.
   2. Made for all costs associated with providing all labor, equipment, materials, and supervision necessary to implement an approved traffic control Plan. Payment shall also include all costs associated with grading and constructing any necessary temporary bypass roads needed to keep the flow of traffic moving during construction operations.

V. Proposal Item 22: Excavation:
   1. Measurement: Per Cubic Yard Basis.
   2. Payment: Made for providing all labor, equipment, materials, supplies etc., necessary to excavate the road and drainage ponds to the elevations and grades shown on Plans. Subgrade preparation to receive concrete structures is incidental to the Proposal item. No payment for Work outside limits indicated on Drawings.

W. Proposal Item 23: Embankment (Fill):
   1. Measurement: Per Cubic Yard Basis.
   2. Payment: Made for providing all labor, equipment, materials, supplies, etc., necessary to fill the areas shown to construct the access road and drainage channels as shown. Subgrade preparation to receive concrete structures is incidental to this Proposal item. No payment for Work outside limits indicted on Drawings.

X. Proposal Item 24: Furnish and Install 3-Inch-Thick Type "B" HMAC, 9-Inch Base Course, 12-Inch Subgrade:
   1. Measurement: Per Square Yard Basis.
   2. Payment: Made for providing and installing 3-inch HMAC pavement, 9-inch base course and preparation of 12 inches of subgrade. Pavement shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install the pavement Sections to the grades shown on Plans in accordance with Specifications. No payment for Work outside limits indicated on Drawings.

Y. Proposal Item 25: Furnish and Install 8-Inch-Thick Concrete Pavement and Reinforcement, 6-Inch Base Course, 12-Inch Subgrade:
   1. Measurement: Per Square Yard Basis.
   2. Payment: Made for providing and installing 8-inch concrete pavement and reinforcement, 6-inch base course, and preparation of 12 inches of subgrade. Pavement shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install the pavement Sections to the grade shown on the Plans in accordance with the Specifications. 6-inch ramps, transformer pad, condensing unit pad, bollards, and wheel stops are incidental to this Proposal item. No payment for Work outside limits indicated on Drawings.

Z. Proposal Item 26: Concrete Drainage Gutter:
   1. Measurement: Per Linear Foot Basis.
   2. Payment: Made for the concrete drainage gutters as detailed on Plans. Pavement shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install the pavement sections to the grades shown on Plans in accordance with the Specifications.

AA. Proposal Item 27: Concrete Retaining Wall and Steel Rails:
   1. Measurement: Per Linear Foot Basis.
   2. Payment: Made for providing and installing the concrete retaining wall. Payment shall include all costs associated with providing all labor, equipment, materials, supervision, excavation, fine grading, curing, welding, painted steel posts and rails, steel embed plates, steel C-channels, control joints, backfill, and all other appurtenances necessary to install the retaining wall as shown on Plans and in accordance with Specification.

BB. Proposal Item 28: Entrance Gate:
1. Measurement: Per Linear Foot Basis.
2. Payment: Made for providing and installing the wrought-iron/steel gate at entrance. Payment shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install as shown on Drawings and in accordance with Specifications.

CC. Proposal Item 29: Exit Gate:
1. Measurement: Per Linear Foot Basis.
2. Payment: Made for providing and installing the wrought iron/steel swing gate at exit. Payment shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install as shown on Drawings and in accordance with Specifications.

DD. Proposal Item 30: Six-Foot Chain Link Fence:
1. Measurement: Per Linear Foot Basis.
2. Payment: Made for providing and installing the chain link fence with e-strand barb wire and screening along property boundary on a linear foot basis. Payment shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install as shown on Drawings and in accordance with Specifications. Sliding gates are incidental to this Proposal item.

EE. Proposal Item 31: Pavement Markings and Striping:
1. Measurement: Per Each Basis.
2. Payment: Made for providing and installing pavement marking symbols. Payment shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install the pavement markings as shown on Plans and in accordance with Specifications.

FF. Proposal Item 32: Schedule 80 Waterline:
1. Measurement: Per Linear Foot Basis.
2. Payment: Made for providing and installing Schedule 80 pipe as shown on Plans. Payment shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install as shown on Drawings and in accordance with Specifications. No payment for Work outside limits indicted on Drawings.

GG. Proposal Item 33: SDR 35 Sewer Line:
1. Measurement: Per Linear Foot Basis.
2. Payment: Made for providing and installing the SDR 35 pipe as shown on Plans. Payment shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install as shown on Drawings and in accordance with Specifications. No payment for Work outside limits indicated on Drawings.

HH. Proposal Item 34: Traffic Signage:
1. Measurement: Per Each Basis.
2. Payment: Made for installation of traffic signage. Payment shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install traffic signage. Such payment shall be compensation for the complete performance of Work in accordance with Drawings and provision of these Specifications.

II. Proposal Item 35: 40-Foot by 60-Foot Metal Building:
   1. Measurement: Lump Sum Basis.
   2. Payment: Made for installation of metal building. Payment shall include all costs associated with providing all labor, equipment, and supervision necessary to install metal building. Such payment shall be compensation for the complete performance of Work in accordance with Drawings and provision of these Specifications.

JJ. Proposal Item 36: Electrical Site Work:
   1. Measurement: Lump Sum Basis.
   2. Payment: Made for electrical site improvements. Electrical Work includes grounding system, service pole, weather head, riser, meter can, main disconnect, fusible/non-fusible disconnects, electrical racks, distribution panels, dry-type transformers, in-ground pull boxes, conduits, trenching and backfill, wires/cables area light fixtures with poles and foundations, interior and exterior light fixtures, receptacles, light switches, data connection points, all building preparation for camera locations, installation of Owner-provided compactor and guard shack, installation of any other electrical items indicated on Contract Drawings, and all associated terminations. Payment includes full compensation for complete performance of Wok in accordance with Drawings and provisions of these Specifications.

KK. Proposal Item 37: Septic Tank:
   1. Measurement: Lump Sum Basis.
   2. Payment made for all costs associated with providing the system design, and all labor, equipment, materials, and supervision necessary to install septic tank, absorptive field, and all necessary piping, fittings, clean outs, and valves.

LL. Proposal Item 38: Landscape and Irrigation:
   1. Measurement: Lump Sum Basis:
   2. Made for installing landscaping and irrigation as shown on Plans. Payment shall include all costs associated with providing all labor, equipment, and supervision necessary.

MM. Proposal Item 39: Entrance Road:
   1. Measurement: Per Square Yard Basis.
   2. Made for providing and installing pavement material to install the entrance road. Pavement shall include all costs associated with providing all labor, equipment, materials, and supervision necessary to install the pavement sections to the grades shown on Plans in accordance with the Specifications. No payment for Work outside limits indicated on Drawings.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 30 00 - ADMINISTRATIVE REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Project Information Management.
   2. Coordination.
   3. Preconstruction meeting.
   4. Electronic drawing file (digital data) request.
   5. Request for information.
   6. Progress meetings.
   7. Preinstallation meetings.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 PROJECT INFORMATION MANAGEMENT

A. Project Website:
   1. Use Newforma Info Exchange at https://projects.team-psc.com/UserWeb/Login to send and receive Project information.
   2. Contact Engineer to set up user name and password information.
   3. If Project is not listed when logged in, contact Engineer to add Project to your account.

B. Project information includes, but is not limited to:
   1. Product Submittals.
   2. Requests for Information (RFI).
   3. Applications for Payment.
   4. Schedules.
   5. Construction Change Requests (CCRs).
   6. Closeout Documents.
   7. Construction Document Files.

### 1.3 COORDINATION

A. Coordinate scheduling, submittals, and Work to assure efficient and orderly sequence of installation of construction elements.

B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various Sections having interdependent responsibilities for installing, connecting to, and placing such equipment in service.

C. Coordinate space requirements and installation of mechanical and electrical work indicated diagrammatically on Drawings. Follow routing as closely as practicable. Utilize spaces efficiently to maximize accessibility for other installations, maintenance, and repairs.

D. In finished building areas, except as otherwise indicated, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements as applicable.

E. Coordinate completion and clean-up of Work of separate Sections in preparation for Substantial Completion.

F. After Owner occupancy of premises, coordinate access to site with Owner for correction of defective Work and Work not in accordance with Contract Documents to minimize disruption of Owner's activities.

1.4 PRECONSTRUCTION MEETING

A. Engineer will schedule a meeting after Notice to Proceed.

B. Attendance Required:
   1. Owner.
   2. Engineer.
   3. Contractor.
   4. Major subcontractors.

C. Agenda:
   1. Distribute Contract Documents.
   2. Submit lists of subcontractors and products, Schedule of Values, submittal schedule, and progress schedule.
   3. Designate personnel representing each party in Contract and Engineer.
   4. Procedures and processing field decisions, submittals, substitutions, Applications for Payments, proposal request, Change Orders, Request for Information (RFI), and Contract closeout procedures.
   5. Review Notice to Proceed and Substantial/Final Completion Dates.
   6. Workmen's identification and background checks.
   7. Stormwater Pollution and Prevention Plan (SWPPP) if necessary.
   8. Scheduling:
      a. Use of premises by Owner and Contractor.
      b. Owner's requirements.
      c. Construction facilities and controls provided by Owner.
      d. Temporary utilities provided by Owner.
      e. Security and housekeeping procedures.
      f. Construction progress meetings.
      g. Procedures for testing.
      h. Procedures for maintaining record documents.
      i. Requirements for start-up of equipment.
      j. Inspection and acceptance of equipment put into service during construction.
   9. Scheduling activities of Construction Material Testing lab.

D. Engineer shall record minutes and distribute copies to participants.

1.5 ELECTRONIC DRAWING FILE (DIGITAL DATA) REQUEST

A. During Procurement Phase:
   1. Bidders and Proposers may purchase a Digital Data file. Digital Data file will be provided in software release currently used by Engineer. File will be provided via Engineer's Project website.
   2. AutoCAD Drawing files (.dwg) are available for purchase from Engineer upon request. Cost of files are indicated below plus applicable tax.
      a. 1 – 3 Sheets: $100.00 per sheet.
      b. 4 – 6 Sheets: $400.00 flat fee.
      c. 7 – 9 Sheets: $500.00 flat fee.

3. Revit® BIM Model files (.rvt) are available for purchase from Engineer upon request. Cost of model files are $150.00 for each model plus applicable tax. All details, detail annotation, and reference are omitted and not part of the Model file.
4. Prior to delivery of file(s), purchaser shall sign a Digital Data Licensing Agreement. Payment for Digital Data file(s) shall occur upon delivery of file to purchaser.
5. Digital Data file(s) shall be used only for preparing Bids and Proposals required by this Project not used in any other form in whole or in part.

B. Upon Award of Contract:

1. At pre-construction meeting, Contractor shall bring the executed Digital Data Licensing Agreement (AIA C106-2013) at the end of this Section for release of electronic files. Upon Contractor submitting the executed Agreement to Engineer, Engineer will provide Contractor one electronic copy of the Revit® BIM Model file(s), AutoCAD (.dwg file(s), when Revit® BIM Model file is not available, and Portable Document Format (.pdf) file(s) at no charge within five working days. Note that CAD files associated with the Work can be accessed and exported from the Revit® BIM Model provided to Contractor through Revit® software; therefore, Engineer will not provide individual CAD files. Files and Formats to be as followed:
   a. Civil Overall master file in AutoCAD format.
      1) Overall Site Plan with utility and grading information.
      2) All details, detail annotation, and references are omitted and not part of the AutoCAD file.
   b. Landscape: Overall master file in AutoCAD format.
      1) Overall Site Plan with grading, flatwork, irrigation, and planting plans.
      2) All details, detail annotation, and references are omitted and not part of the AutoCAD file.
   c. Structural: Revit® BIM Model and associated working plans views.
      1) Overall Site Plan with utility and grading information.
      2) All details, detail annotation, and reference are omitted and not part of the AutoCAD file.
   d. Architectural/Interior: Revit® BIM Model and associated working plan views.
      1) Plan views contain overall and enlarged section plan view set-up of floor plans, floor patterns, reflected ceilings, and roof plans only. All plan views contain grids, dimensions, room names, and general annotation.
      2) Reflected Ceiling Plans contain ceilings grids and types only. Lighting and mechanical are provided as part of the MEP Model.
      3) Roof Plans contain grids and general annotation only. Mechanical is provided as part of the MEP Model.
      4) Interior and exterior elevations and schedules.
      5) Finish plans and finish schedules.
      6) All details, details annotation, and references are omitted and not part of the model life.
   e. Mechanical, Electrical, and Plumbing: Revit® BIM Model and associated working plan views.
      1) Plan views contain overall and enlarged plan section view set-up of mechanical, electrical lighting, electrical power, and plumbing plans only.
      2) All details, detail annotation, and references are omitted and not part of the model file.

f. Other Disciplines: Revit® BIM Model and associated working plan views.
   1) Plan views contain overall and enlarged plan section view set-up showing all device locations and general annotation.
   2) All details, detail annotation and references are omitted and not part of the model file
   3) The Revit All details, detail annotation, and references are omitted and not part of the model file.

2. Revit® BIM Model file provided to Contractor is NOT FOR CONSTRUCTION PURPOSES, but convenience only. This BIM Model will consist of the original model utilized for base bid. It is Contractor responsibility to coordinate all accepted alternated, addenda, RFI, Proposal Request, and any other changes realized during procurement and construction phases. Engineer will not provide up-to-date Contract Documents or update BIM Models to Contractor unless otherwise stated within the Owner/Engineer Agreement.

3. Conformed Construction Documents: If required by Owner/Engineer Agreement, they will be provided in PDF. Conformed Construction Documents are Drawings and Specifications modified to include any Addenda issued before execution of the Contract.
   a. To the extent Conformed Construction Documents are provided to Contractor, the following provisions shall apply:
      1) Conformed Construction Documents, and related information contained therein, are provided for Contractor's convenience only and does not relieve Contractor from Contract Document requirements. Specifically, to the extent that any discrepancy or conflict exist between Issue for Bid documents, including any Addenda issued prior to execution of Contact or Modifications issued after execution of Contact on the one hand, and Conformed Construction Documents on the other; Issue for Bid documents Addenda, and Modifications shall control unless otherwise specified in writing by Engineer.
      2) Contractor shall not use such Drawings, documents, or other data, in whole or in part, for any purpose or project other than this Project, in preparation of Shop Drawings and other submittals.
      3) Contractor acknowledges that such Drawings, documents, or other data obtained prior to use by them for any purpose.
      4) Any Conformed Construction Documents, including any Drawings Specifications, documents, or other data related thereto, are provided "as is" without representation or warranty by Engineer, either expressed or implied.
      5) Contractor acknowledges that Conformed Construction Documents provide by Engineer are as courtesy to Contractor at their specific request, and accordingly, CONTRACTOR HEREBY AGREES TO RELEASE, HOLD HARMLESS, DEFEND, AND INDEMNIFY ENGINEER AND OWNER FROM ANY AND ALL CLAIMS, DEMANDS, OR CAUSES OF ACTION, WHICH CONTRACTOR OR ANY THIRD PARTY MAY HAVE BY REASON OF ANY INJURY OR DAMAGE SUSTAINED BY CONTRACTOR OR THIRD PARTY ARISING OUT OF OR IN ANY WAY RELATED TO THE USE OF SUCH CONFORMED CONSTRUCTION DOCUMENTS.

1.6 REQUEST FOR INFORMATION (RFI)

A. RFI requests from subcontractors or material suppliers will not be considered.
B. Information indicated on RFI shall be complete before submission. If Engineer determines request can be answered with information provided, Engineer will assign RFI tracking number. If Engineer determines request is not an RFI, request will be returned to Contractor electronically and deleted from Engineer's electronic tracking software without assigning an RFI tracking number. A transmittal document returning denied RFI request will be provided with a response indicating action to be taken by Contractor.
C. RFIs may contain more than 1 item when items are related. Otherwise, only 1 item shall be addressed on each RFI request.
D. Allow 7 days for Engineer's response to each RFI.
E. Response to RFI will be issued to Contractor and Owner per Section 01 33 00 "Submittal Procedures."
F. Responses from Engineer are not changes unless issued with a change per Section 01 20 00 "Price and Payment Procedures."

1.7 PROGRESS MEETINGS

A. Schedule and administer monthly meetings throughout Work progress at minimum.
B. Engineer will arrange meetings, prepare agenda with copies for participants, preside at meetings.
C. Attendance Required:
   1. Owner.
   2. Job superintendent.
   3. Major subcontractors.
   4. Suppliers.
   5. Engineer.
   6. As appropriate to agenda topics for each meeting.
D. Agenda:
   1. Review minutes of previous meetings.
   2. Review Work progress.
   3. Field observations, problems, and decisions.
   4. Identify problems which impede planned progress.
   5. Review submittal schedule and status of submittals.
   6. Review off-site fabrication and delivery schedules.
   7. Maintenance of progress schedule.
   8. Corrective measures to regain projected schedules.
   9. Planned progress during succeeding Work period.
   10. Coordinate projected progress.
   11. Maintenance of quality and work standards.
   12. Effect of proposed changes on progress schedule and coordination.
   13. Testing.
   14. Other business relating to Work.
E. Record minutes and distribute copies within 5 days to Engineer, participants, and those affected by decisions made.

1.8 PREINSTALLATION MEETING

A. When required in individual Specifications, convene a preinstallation meeting at site before installing Work.
B. Require attendance of parties directly affecting, or affected by, Work.
C. Notify Engineer 14 days in advance of meeting date.
D. Prepare agenda and preside at meeting.
   1. Review conditions of installation, preparation, and installation procedures.
   2. Review coordination with related work.
E. Record minutes and distribute copies within 5 days after meeting to participants and copy Engineer.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# AIA® Document C106™ – 2013

## *Digital Data Licensing Agreement*

**AGREEMENT** made as of the day of in the year
*(In words, indicate day, month and year.)*

**BETWEEN** the Party transmitting Digital Data ("Transmitting Party"):
*(Name, address and contact information, including electronic addresses)*

Parkhill.

and the Party receiving the Digital Data ("Receiving Party"):
*(Name, address and contact information, including electronic addresses)*

for the following Project:
*(Name and location or address)*

**ADDITIONS AND DELETIONS:**
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The Transmitting Party and Receiving Party agree as follows.

**TABLE OF ARTICLES**


1 GENERAL PROVISIONS

2 TRANSMISSION OF DIGITAL DATA

3 LICENSE CONDITIONS

4 LICENSING FEE OR OTHER COMPENSATION

5 DIGITAL DATA


**ARTICLE 1 GENERAL PROVISIONS**

**§ 1.1** The purpose of this Agreement is to grant a license from the Transmitting Party to the Receiving Party for the Receiving Party's use of Digital Data on the Project, and to set forth the license terms.

**§ 1.2** This Agreement is the entire and integrated agreement between the parties. Except as specifically set forth herein, this Agreement does not create any other contractual relationship between the parties.


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User Notes: (862876232)

§ 1.3 For purposes of this Agreement, the term Digital Data is defined to include only those items identified in Article 5 below.

§ 1.3.1 Confidential Digital Data is defined as Digital Data containing confidential or business proprietary information that the Transmitting Party designates and clearly marks as "confidential."

## ARTICLE 2 TRANSMISSION OF DIGITAL DATA

§ 2.1 The Transmitting Party grants to the Receiving Party a nonexclusive limited license to use the Digital Data identified in Article 5 solely and exclusively to perform services for, or construction of, the Project in accordance with the terms and conditions set forth in this Agreement.

§ 2.2 The transmission of Digital Data constitutes a warranty by the Transmitting Party to the Receiving Party that the Transmitting Party is the copyright owner of the Digital Data, or otherwise has permission to transmit the Digital Data to the Receiving Party for its use on the Project in accordance with the terms and conditions of this Agreement.

§ 2.3 If the Transmitting Party transmits Confidential Digital Data, the transmission of such Confidential Digital Data constitutes a warranty to the Receiving Party that the Transmitting Party is authorized to transmit the Confidential Digital Data. If the Receiving Party receives Confidential Digital Data, the Receiving Party shall keep the Confidential Digital Data strictly confidential and shall not disclose it to any other person or entity except as set forth in Section 2.3.1.

§ 2.3.1 The Receiving Party may disclose the Confidential Digital Data as required by law or court order, including a subpoena or other form of compulsory legal process issued by a court or governmental entity. The Receiving Party may also disclose the Confidential Digital Data to its employees, consultants or contractors in order to perform services or work solely and exclusively for the Project, provided those employees, consultants and contractors are subject to the restrictions on the disclosure and use of Confidential Digital Data as set forth in this Agreement.

§ 2.4 The Transmitting Party retains its rights in the Digital Data. By transmitting the Digital Data, the Transmitting Party does not grant to the Receiving Party an assignment of those rights; nor does the Transmitting Party convey to the Receiving Party any right in the software used to generate the Digital Data.

§ 2.5 To the fullest extent permitted by law, the Receiving Party shall indemnify and defend the Transmitting Party from and against all claims arising from or related to the Receiving Party's modification to, or unlicensed use of, the Digital Data.

## ARTICLE 3 LICENSE CONDITIONS

The parties agree to the following conditions on the limited license granted in Section 2.1:
*(State below rights or restrictions applicable to the Receiving Party's use of the Digital Data, requirements for data format, transmission method or other conditions on data to be transmitted.)*

This Digital Data is part of the Transmitting Party's Instruments of Service and shall not be used by Receiving Party or anyone else receiving this data through or from the Receiving Party for any purpose other than as a convenience in the preparation of bid submittals, shop drawings, coordination drawings, construction phase submittals, and field layout and staking required by the Owner for the exclusive use of the referenced Project. Any use or reuse by the Receiving Party or by others will be at the Receiving Party's sole risk and without liability or legal exposure to Transmitting Party. The Receiving Party agrees to make no claim and hereby waive, to the fullest extent permitted by law, any claim or cause of action of any nature against Transmitting Party, its officers, directors, employees, or subconsultants that may arise out of or in connection with Receiving Party's use of this Digital Data.
Receiving party or any third party, to the fullest extent permitted by law, shall indemnify and hold harmless the Transmitting Party against all damages, liabilities or costs, including reasonable attorney's fees and defense costs arising out of or resulting from Receiving Party or any third parties use of this Digital Data.

No representation as to the compatibility of this Digital Data with Receiving Party's hardware or software is provided.

This Digital Data is not a Construction Document. Differences may exist between this Digital Data and corresponding two-dimensional hard-copy Construction Document. The Transmitting Party makes no representation regarding the

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accuracy or completeness of the Digital Data the Receiving Party receives. In the event that a conflict arises between the signed/sealed two-dimensional hard-copy Construction Document prepared by Transmitting Party and the Digital Data, the signed/sealed two-dimensional hard-copy Construction Document shall govern. The Receiving Party is responsible for determining if any conflict exists. By the Receiving Party's use of this Digital Data, Receiving Party is not relieved of their duty to fully comply with the Contract Documents, including, and without limitation, the need to check, confirm and coordinate all dimensions and details, field measurements, verify field conditions and coordination of work with that of other contractors for the Project.

Because information presented in the Digital Data can be modified, unintentionally or otherwise, the Transmitting Party reserves the right to remove all indicia of ownership and/or involvement from each Digital Data.

Under no circumstances shall delivery of this Digital Data for use by the Receiving Party be deemed a sale of document ownership by Transmitting Party, and no warranties, either express or implied, of merchantability or fitness for any particular purpose is made. In no event shall the Transmitting Party be liable for any loss of profit or any consequential damages as a result of the Receiving Party's use or reuse of this Digital Data.

The Digital Data file does not necessarily contain all the information that is required to produce finished Construction Documents. Because of this, there may be data within the Digital Data that is missing, incomplete or even contradictory to the information provided in the final two dimensional Construction Documents.

Professional judgment will need to be used by the Receiving Party, along with reasonable expectations and interpretations in order to use the Digital Data for its intended purpose. Should the Transmitting Party provide revised and updated copies of the Digital Data to the Receiving Party throughout the Project, all terms and conditions of this agreement will be applicable and unchanged for all subsequent transmissions of the Digital Data.

## ARTICLE 4 LICENSING FEE OR OTHER COMPENSATION

The Receiving Party agrees to pay the Transmitting Party the following fee for the Receiving Party's use of the Digital Data:
*(State the fee, in dollars, or other method by which the Receiving Party will compensate the Transmitting Party for the Receiving Party's use of the Digital Data.)*

DURING PROCUREMENT PHASE

**.dwg Files**
1-3 Sheets $125.00 per sheet plus applicable tax
4-6 Sheets $500.00 flat fee plus applicable tax
7-9 Sheets $700 flat fee plus applicable tax

**.rvt Files**
Revit Models are $300.00 per model plus applicable tax

UPON AWARD OF CONTRACT:
No service fee will be required for delivery of the electronic file(s).

## ARTICLE 5 DIGITAL DATA

The Parties agree that the following items constitute the Digital Data subject to the license granted in Section 2.1:
*(Identify below, in detail, the information created or stored in digital form the parties intend to be subject to this Agreement.)*

[Revit Models (.rvt files)]
[AutoCAD (.dwg files)]
[Portable Document Format (.pdf)]


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User Notes:

PACKET 7.209 September 12, 2023
PACKET 11.211 November 14, 2023 (3862876232)

This Agreement is entered into as of the day and year first written above and will terminate upon Substantial Completion of the Project, as that term is defined in AIA Document A201™–2017, General Conditions of the Contract for Construction, unless otherwise agreed by the parties and set forth below.
*(Indicate when this Agreement will terminate, if other than the date of Substantial Completion.)*

None

**PARKHILL**

| | |
|---|---|
| **TRANSMITTING PARTY** *(Signature)* | **RECEIVING PARTY** *(Signature)* |
| *(Printed name and title)* | *(Printed name and title)* |

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User Notes:

# SECTION 01 32 16 - CONSTRUCTION PROGRESS SCHEDULE

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Submittals.
   2. Bar Gantt chart schedules.
   3. Review and evaluation.
   4. Updating schedules.
   5. Distribution.

B. Related Sections:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 SUBMITTALS

A. Post as electronic file to Project website.

B. Submit initial progress schedule for Engineer review within 15 days after established Notice to Proceed date.

C. Schedule Updates:
   1. Submit with each Application for Payment.
   2. Projected and actual percent of completion.
   3. Completion progress by listed activity and subactivity to within 5 working days prior to submittal.
   4. Changes in Work scope and activities modified since submittal.
   5. Delays in submittals or resubmittals, deliveries, or Work.
   6. Revised projections of progress and completion.

D. Narrative Progress Report:
   1. Submit with each Application for Payment.
   2. Summary of Work completed during past period between reports.
   3. Work planned during next period.
   4. Explanation of differences between summary of Work completed and Work planned in previously-submitted report.
   5. Current and anticipated delaying factors and estimated impact on other activities and completion milestones.
   6. Corrective action taken or proposed.

### 1.3 BAR GANTT CHART SCHEDULES

A. Format Bar Gantt chart Schedule to include at least:
   1. Identification and listing, in chronological order, activities reasonably required to complete Work including:
      a. Subcontract Work.
      b. Major equipment design, fabrication, factory testing, and delivery dates including required lead times.
      c. Move-in and other preliminary activities.

d. Equipment and equipment system test and startup activities.
e. Project closeout and cleanup.
f. Work sequences, constraints, and milestones.

2. Listings identified by Specification Section number.
3. Identification of:
   a. Horizontal time frame by year, month, and week.
   b. Duration, early start, and completion for each activity and subactivity.
   c. Critical activities and Project float.
   d. Sub-schedules to further define critical portions of Work.

1.4 REVIEW AND EVALUATION

A. Participate in joint review and evaluation of schedules with Engineer at each Progress Meeting or Application for Payment submittals.
B. Evaluate Project status to determine Work behind and ahead of schedule.
C. After review, revise schedules incorporating results of review and resubmit within 10 days.

1.5 UPDATING SCHEDULES

A. Maintain schedules to record actual start and finish dates of completed activities.
B. Indicate progress of each activity to date of revision with projected completion date of each activity. Update schedules to depict current status of Work.
C. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
D. Upon approval of Change Order, include change in next schedule submittal.
E. Indicate changes required to maintain Date of Substantial Completion.
F. Prepare narrative report to define problem areas, anticipated delays, and impact on schedule. Report corrective action taken or proposed and effect.

1.6 DISTRIBUTION

A. Following joint review, distribute copies to subcontractors, suppliers, Engineer, Owner, and other concerned parties.
B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 33 00 - SUBMITTAL PROCEDURES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Submittal procedures.
   2. Resubmittal requirements.
   3. Proposed products list.
   4. Requirements for complete shop drawings.
   5. Product data.
   6. Samples.
   7. Test reports.
   8. Certificates.
   9. Manufacturer instructions.
   10. Manufacturer field reports.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 SUBMITTAL PROCEDURES

A. Submit to Engineer for review to check for conformance with information given and design concept expressed in Contract Documents.

B. Produce copies and distribute in accordance with this Article.

C. Use Project website to submit record documents as described in Section 01 70 00 "Execution and Closeout Requirements."

D. Transmit each submittal separately with Contractor's standard transmittal letter including Contractor name, address, and phone number. Each Submittal shall contain only one Specification Section.

E. Sequentially number transmittal forms using Section number or Contractor's sequential numbering system.

F. Identify Project, Contractor, subcontractor, or supplier, pertinent Drawing sheet and detail number(s), and Specification Section number appropriate to Submittal.

G. Apply Contractor's stamp, signed or initialed certifying review, verification of products required, field dimensions, adjacent construction Work, and coordination of information, is per requirements of Work and Contract Documents.

H. Schedule Submittals to expedite Project and deliver to Engineer. Coordinate submission of related items.

I. For each Submittal for review, allow 10 working days excluding delivery time to and from Contractor.

J. Identify variations from Contract Documents and product or system limitations detrimental to successful performance of completed Work. Information, comments, field verifications, responses, or other notations marked on Submittals by Contractor shall be in blue or green colors only.

K. Distribute copies of reviewed Submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

L. Unrequested Submittals will not be recognized or processed.

M. Format:
   1. Submit all Submittals digitally using PDF file extension. Each Submittal shall be a single PDF file including transmittal letter. Multiple files for same Submittal will not be accepted.
   2. Submittals in any other format, including ZIP files, will be rejected.
   3. Hard copies, not accepted.
   4. To ensure each page is legible, PDF pages of Drawings shall be same size/scale as hard copy. Where applicable, provide scale symbols to indicate scale. Illegible submittals will be rejected.
   5. Upload Submittals to Project website.

N. Submittal procedures described herein apply to construction progress schedule, products list, Shop Drawings, product data, samples (actual samples and digital files of same), design data, test reports, certificates, manufacturer's instructions and field reports, erection Drawings, RFIs, and other Submittals submitted to Engineer.

1.3 RESUBMITTAL REQUIREMENTS

A. Revise Submittals as required and resubmit to meet requirements specified and noted on submittal reviews.
B. Mark as *Resubmittal.*
C. Reuse original transmittal number and supplement with sequential alphabetical or numeric suffix for each Resubmittal.

1.4 PROPOSED PRODUCTS LIST

A. Within 15 days after date of Notice to Proceed, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.5 REQUIREMENTS FOR COMPLETE SHOP DRAWINGS

A. Printable Image Size: Minimum 8.5 by 11 inches, maximum 30 by 42 inches.
B. Draw details to a noted scale.
C. Draw site plans to same scale indicated on Contract Drawings.
D. Engineer-issued Construction Documents (electronic or paper format) cannot be used in any shape, form, or fashion in creating and developing Shop Drawings, except electronic files containing floor, site plans, or layout plans purchased from Engineer may be used as backgrounds for Contractor, subcontractors, sub-subcontractors, and material suppliers in Shop Drawing process.

1.6 PRODUCT DATA

A. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to Project.
B. Include recommendations for application and use, and reference to compliance with specified standards of trade associations and testing agencies.
C. After review, distribute per Article 1.2 "Submittal Procedures," and provide copies for Record Documents described in Section 01 70 00 "Execution and Closeout Requirements."

1.7 SAMPLES

A. Submit samples to illustrate functional and aesthetic characteristics of product with integral parts and attachment devices. Accompany physical sample with color digital image (photo or scanned PDF) of sample. Coordinate sample Submittals for interfacing work.
B. Unless otherwise specified, submit samples of finishes from manufacturer's full range of standard colors, textures, and patterns, for Engineer selection.
C. Where variations in color, pattern, or texture are inherent in material or product, submit multiple samples to indicate approximate range or variations.
D. Include full Project information and identification of manufacturer, model number, type, style and color on each sample.
E. Submit number of samples specified in individual Specifications, one retained by Engineer.
F. Reviewed samples which may remain as part of Work indicated in individual Specifications.
G. Do not use Samples for testing unless specifically stated in individual Specifications.

1.8 TEST REPORTS

A. Submit for Engineer's knowledge as Contract Administrator or Owner.
B. Submit test reports for information to assess conformance with information given and design concept expressed in Contract Documents.

1.9 CERTIFICATES

A. When specified in individual Specifications, submit certification by manufacturer, installation/application subcontractor, or Contractor, to Engineer.
B. Indicate material or product conforms to/exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
C. Certificates may be recent or previous test results on material or product, but must be acceptable to Engineer.

1.10 MANUFACTURER'S INSTRUCTIONS

A. When specified in individual Specifications, submit manufacturer-printed instructions for delivery, storage, assembly, installation, startup, adjusting, and finishing.
B. Identify conflicts between manufacturers' instructions and Contract Documents.
C. Indicate special procedures, conditions requiring special attention and special environmental criteria required for application or installation.

1.11 MANUFACTURER'S FIELD REPORTS

A. Submit reports for Engineer's benefit as contract administrator or for Owner.
B. Submit report within 30 days of observation to Engineer for information.
C. Submit for information to assess conformance with information given and design concept expressed in Contract Documents.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 40 00 - QUALITY REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Quality control.
   2. Tolerances.
   3. References.
   4. Mockup requirements.
   5. Testing and inspection services.
   6. Manufacturer's field services.

B. Related Sections:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 QUALITY CONTROL

A. Monitor quality control over suppliers, manufacturers, products, services, Site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturer's instructions. If manufacturer's instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Perform Work using persons qualified to produce required and specified quality.

D. Products, materials, and equipment may be subject to inspection by Engineer at place of manufacture or fabrication. Such inspections shall not relieve Contractor of complying with requirements of Contract Documents.

E. Supervise performance of Work to ensure Work, whether completed or in progress, will not be subjected to harmful, dangerous, damaging, or otherwise deleterious exposure during construction.

### 1.3 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturer's recommended tolerances and tolerance requirements in reference standards. When tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

### 1.4 REFERENCES

A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard except when more rigid requirements are specified or required by applicable codes.

B. Conform to reference standard by date of issue current as of date of Contract Documents except where specific date is established by code.

C. Obtain copies of standards and maintain onsite when required by product Specifications.

D. When requirements of indicated reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
E. Neither contractual relationships, duties, or responsibilities of parties in Contract, nor those of Engineer shall be altered from Contract Documents by mention or inference in reference documents.

1.5 TESTING AND INSPECTION SERVICES

A. Owner will employ and pay for specified services of an independent firm to perform testing and inspection.
B. Independent firm will perform tests, inspections, and other services specified in individual Specifications and as required by Engineer.
C. Testing, inspections, and source quality control may occur on or off Project Site. Perform off-site testing as required by Engineer.
D. Submit reports to Engineer, indicating observations and results of tests and compliance or noncompliance with Contract Documents.
E. Cooperate with independent firm. Furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor, as requested.
   1. Notify Engineer and independent firm 24 hours before expected time for operations requiring services.
   2. Pay for additional samples and tests required for Contractor use.
F. Employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work per requirements of Contract Documents.
G. Retesting or Re-inspection Required Because of Nonconformance with Specified or Indicated Requirements: Payment for retesting or re-inspection will be charged to Contractor by deducting testing charges from Contract Sum/Price.
H. Independent Firm Responsibilities:
   1. Test samples of mixes submitted by Contractor.
   2. Provide qualified personnel at Site. Cooperate with Engineer and Contractor in performance of services.
   3. Perform indicated sampling and testing of products per specified standards.
   4. Ascertain compliance of materials and mixes with Contract Document requirements.
   5. Promptly notify Engineer and Contractor of observed irregularities or nonconformance of Work or products.
   6. Perform additional tests required by Engineer.
   7. Attend preconstruction and progress meetings.
I. Independent Firm Reports. After each test, promptly submit report to Engineer and Contractor and provide interpretation of test results. Include:
   1. Date issued.
   2. Project title and number.
   3. Name of inspector.
   4. Date and time of sampling or inspection.
   5. Identification of product and Specifications.
   6. Location in Project.
   7. Type of inspection or test.
   8. Date of test.
   9. Results of tests.
   10. Conformance with Contract Documents.

1.6 MANUFACTURER'S FIELD SERVICES

A. When specified in individual Specifications, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, equipment startup, testing, adjusting, and balancing equipment, commissioning, and other as applicable, and initiate instructions when necessary.

B. Submit qualifications of observer to Engineer 30 days before required observations. Observer is subject to Engineer approval.

C. Report observations and Site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturer's written instructions.

D. Refer to Section 01 33 00 "Submittal Procedures," Article 1.11 - Manufacturer's Field Reports.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 43 26 - TESTING LABORATORY SERVICES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Selection and payment.
   2. Contractor submittals.
   3. Laboratory responsibilities.
   4. Laboratory reports.
   5. Limits on testing laboratory authority.
   6. Contractor responsibilities.
   7. Schedule of inspections and tests.

B. Related Sections:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCES

A. ASTM C1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation.

B. ASTM D3666 - Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials.

C. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in Testing/Inspection of Soil and Rock as Used in Engineering Design and Construction.

D. ASTM E329 - Standard Specification for Minimum Requirements for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.

E. ISO/IEC 17025.

### 1.3 SELECTION AND PAYMENT

A. Contractor shall employ and pay for services of an independent testing laboratory to perform specified inspection and testing.

B. Employment of testing laboratory shall in no way relieve Contractor of obligation to perform work per Contract Document requirements.

### 1.4 QUALITY ASSURANCE

A. Comply with requirements of ASTM C1077, D3666, D3740, E329, and ISO/IEC 17025.

B. Laboratory: Authorized to operate in State of Texas.

C. Laboratory Staff: Maintain a full-time, on-staff, registered Engineer to review services.

### 1.5 CONTRACTOR SUBMITTALS

A. Before starting Work, submit testing laboratory name, address, and phone number, as well as names of full-time registered Engineer and responsible officer.

B. Submit copy of laboratory facility inspection report made by Materials Reference Laboratory of National Bureau of Standards during most recent inspection, with remedy memorandum of deficiencies, reported by inspection.

C. Submit Testing Laboratory firm's reports to the distribution list the Engineer provided at preconstruction conference, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
D. Testing and employment of testing agency or laboratory does not relieve Contractor from performing Work to Contract requirements.
E. Retest/reinspect required because of non-conformance to specified requirements using same testing agency or laboratory. Payment for retesting is Contractor responsibility.

1.6 LABORATORY RESPONSIBILITIES

A. Test samples of mixes submitted by Contractor.
B. Provide qualified personnel onsite. Cooperate with Engineer and Contractor in service performance.
C. Perform specified inspection, sampling, and testing of Products per specified standards.
D. Ascertain compliance of materials and mixes with Contract Document requirements.
E. Promptly notify Engineer and Contractor of observed irregularities or non-conformance of Work or Products.
F. Perform additional inspections and tests required by Engineer.
G. Attend pre-construction conferences.

1.7 LABORATORY REPORTS

A. After each inspection and test, promptly distribute reports to distribution list provided by Engineer at preconstruction conference.
B. Include:
   1. Date issued.
   2. Project title and number.
   3. Name of inspector.
   4. Date and time of sampling or inspection.
   5. Identification of product and Specification Section.
   6. Location in Project.
   7. Type of inspection or test.
   8. Date of test.
   9. Results of tests.
   10. Conformance with Contract Documents.
C. When requested by Engineer, provide interpretation of test results.

1.8 LIMITS ON TESTING LABORATORY AUTHORITY

A. Laboratory may not release, revoke, alter, or enlarge Contract Document requirements.
B. Laboratory may not approve or accept any portion of Work.
C. Laboratory may not assume any duties of Contractor.
D. Laboratory has no authority to stop the Work.

1.9 CONTRACTOR RESPONSIBILITIES

A. Deliver to laboratory at designated location, adequate samples of materials proposed to use which require testing along with proposed mix designs.
B. Cooperate with laboratory personnel and provide access to Work and manufacturer facilities.

C. Provide incidental labor and facilities to provide access to Work to test, obtain, and handle samples at site or source of products to test, facilitate tests and inspections, storage, and curing test samples.
D. Notify Engineer and laboratory 24 hours before expected time for operations requiring inspection and testing services.
E. Pay costs of testing laboratory services from Allowance specified in Section 01 20 00 "Price and Payment Procedures" on Engineer approval of invoices.
F. Employ services of a separate qualified testing laboratory, arrange with laboratory, and pay for additional samples and tests required by Contractor beyond specified requirements.

1.10 SCHEDULE OF INSPECTIONS AND TESTS

A. As indicated in individual Specifications.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Temporary Utilities:
      a. Electricity.
      b. Lighting.
      c. Heating.
      d. Cooling.
      e. Ventilation.
      f. Communication services.
      g. Water.
      h. Sanitary.
   2. Construction Facilities:
      a. Field offices and sheds.
      b. Employee residential occupancy.
      c. Vehicular access.
      d. Parking.
      e. Progress cleaning.
      f. Project identification.
      g. Traffic regulation.
   3. Temporary Controls:
      a. Barriers.
      b. Fencing.
      c. Enclosures.
      d. Security.
      e. Water control.
      f. Dust control.
      g. Erosion and sediment control.
      h. Noise control.
      i. Pest and rodent control.
      j. Pollution control.
      k. Protect Work.
   4. Remove utilities, facilities, and controls.

B. Related Requirements:
   1. Other Divisions 01 Specification Sections apply to Work of this Section.

### 1.2 ELECTRICITY

A. Provide and pay for required power service from existing electrical utility source.

### 1.3 LIGHTING

A. Do not utilize permanent building lighting during construction. Provide and maintain 1-watt-per-square-foot lighting to exterior staging and storage areas after dark for security purposes.

B. Provide and maintain 0.25-watt-per-square-foot HID lighting to interior work areas after dark for security purposes.
C. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps, as required.
D. Maintain lighting and provide routine repairs.

1.4 VENTILATION

A. Ventilate enclosed areas to assist cure of materials, dissipate humidity, and prevent accumulation of dust, fumes, vapors, or gases.
B. Provide temporary fan units required to maintain clean air for construction operations.

1.5 COMMUNICATION SERVICES

A. At minimum, provide cell phone service for onsite superintendent and home office phone service.

1.6 WATER

A. Provide, maintain, and pay for suitable quality water service required for construction operations. Extend branch piping with outlets located so water is available by hoses with threaded connections.

1.7 SANITARY

A. Provide and maintain required facilities and enclosures.
B. Do not use existing facilities.

1.8 FIELD OFFICES AND SHEDS

A. Office
   1. Construction
      a. Portable/mobile building(s) or buildings constructed with floors raised above ground, securely fixed to foundations with steps and landings at entrance doors.
      b. Structurally-sound, secure, weathertight enclosure to maintain environmental conditions specified.
      c. Maintain during progress of Work.
      d. Temperature Transmission Resistance of Floors, Walls, and Ceilings: Compatible with occupancy and storage requirements.
      e. Exterior Materials: Weather resistant.
      f. Interior Materials in Offices: Sheet-type materials for walls and ceilings, prefinished or painted, resilient floors and bases.
   2. Lighting: Exterior lighting at entrance doors.
   3. Fire Extinguishers: Provide appropriate-type fire extinguisher at each building.
   4. Provide separate workstation, similarly equipped and furnished, for Engineer use.
   5. Office Heating, Cooling, and Ventilating: Automatic equipment to maintain comfort conditions.
B. Storage Areas and Sheds
   1. Size storage per Specifications allowing for access and orderly provision for product maintenance and inspection.

2. Fire Extinguishers: Appropriate-type fire extinguisher at each storage area.
3. Interior Materials in Storage Sheds: As required to provide specified environmental conditions for storage of products.
4. Heating and Ventilation: As required to maintain products per Contract Documents.
5. Lighting: As required for maintenance and inspection of products.

C. Prepare: Fill/grade sites for temporary structures sloped for drainage away from buildings.
D. Install office spaces ready for occupancy 15 days after date fixed in Notice to Proceed.
E. Maintenance and Cleaning
1. Weekly janitorial services for offices, periodic cleaning and maintenance for office and storage areas.
2. Maintain approach walks free of mud, water, and snow.
F. Removal: At Work completion remove buildings, foundations, utility services, and debris. Restore areas to original conditions.

1.9 EMPLOYEE RESIDENTIAL OCCUPANCY

A. Not allowed on Owner property.

1.10 VEHICULAR ACCESS

A. Construct temporary all-weather access roads from public thoroughfares to serve construction area, width and load-bearing capacity to accommodate unimpeded traffic for construction purposes.
B. Construct temporary bridges and culverts to span low areas and allow unimpeded drainage.
C. Extend and relocate vehicular access as Work progress requires, providing necessary detours for unimpeded traffic flow.
D. Location as indicated on Drawings.
E. Provide unimpeded access for emergency vehicles. Maintain 20-foot-wide driveways with turning space between and around combustible materials.
F. Provide and maintain access to fire hydrants and control valves free of obstructions.
G. Provide means of removing mud from vehicle wheels before entering public streets.
H. Do not use existing onsite roads for construction traffic.
I. Verify with local Authorities Having Jurisdiction regarding temporary fire lanes and related access.

1.11 PARKING

A. Construct temporary gravel-surfaced parking areas to accommodate construction personnel.
B. Locate as approved by Engineer.
C. When Site space is not adequate, provide additional off-site parking.

D. Use of existing on-site streets and driveways for construction traffic is not permitted.
E. Using designated areas of existing parking facilities by construction personnel is not permitted.
F. Do not allow heavy or tracked vehicles or construction equipment in parking areas.
G. Do not allow vehicle parking on existing pavement.
H. Designate one parking space for Engineer.
I. Permanent Pavements And Parking Facilities
1. Before Substantial Completion, bases for permanent roads and parking areas may be used for construction traffic.

2. Avoid traffic loading beyond paving design capacity. Tracked vehicles not allowed.
3. Use of permanent parking structures not permitted.

J. Maintenance
1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, mud, snow, and ice.
2. Maintain existing and permanent paved areas used for construction. Promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.

K. Removal, Repair
1. Remove temporary materials and construction at Substantial Completion.
2. Remove underground work and compacted materials to 2-foot depth. Fill and grade site as specified.
3. Repair existing facilities damaged by use, to original condition.

L. Mud from Site Vehicles: Provide way to remove mud from wheels before entering streets.

## 1.12 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain a clean and orderly site.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, before enclosing space.

C. Sweep and vacuum interior areas clean before surface finishing and continue cleaning to eliminate dust.

D. Remove waste materials, debris, and rubbish from site and dispose off-site as required to maintain clean site.

## 1.13 PROJECT IDENTIFICATION

A. Project Identification Sign
1. Size: Provide one 8 feet wide by 4 feet high.
2. Materials: 3/4-inch-thick exterior-grade plywood and solid-wood frame.
3. Background Paint: Exterior quality, two coats; sign background of olor as selected.
4. Lettering: Exterior paint of quality adequate to withstand weathering, fading, and chipping for construction duration, contrasting colors as selected with exhibit lettering by professional sign painter.
5. Lettering: Precut vinyl self-adhesive products, white.
6. Design: Design indicated in Drawings.
7. Content:
   a. Project title, as indicated on Contract Documents.
   b. Owner's name and logo.
   c. Names and titles of Engineer and consultants.
   d. Name of Prime Contractor.
   e. Name of major subcontractors.
8. Lettering: Series C of Standard Alphabet for Traffic Control Devices *Manual on Uniform Traffic Control Devices for Streets and Highways*, Federal Highway Administration.

B. Project Informational Signs
1. If required by other documents or Specifications, provide weather-protected signs for site-safety procedures, wage rates, and stormwater pollution prevention plan (SWPPP).
2. Erect sign on or adjacent to field office, if required.

C. Design sign and structure to withstand 90-mile-per-hour wind velocity.
D. Installation
   1. Install Project identification sign within 15 days after date fixed by Notice to Proceed.
   2. Erect at designated location.
   3. Erect supports and framing on secure foundation, rigidly braced and framed to resist wind loadings.
   4. Install sign surface plumb and level with butt joints. Anchor securely.
   5. Paint exposed surfaces of sign supports and framing.
E. No other signs allowed without Owner permission except those required by law.
F. Maintain clean signs and supports. Repair deterioration and damage.
G. Remove signs, framing, supports, and foundations at completion of Project and restore area.

1.14 TRAFFIC REGULATION

A. Contractor Responsibilities
   1. Provide Traffic Control Plan (TCP) as necessary for phased construction.
   2. TCP must be signed and sealed by a professional engineer licensed in [Texas].
   3. Designate a responsible individual for TCP replacement and maintenance.
B. Signs, Signals, And Devices
   1. Post- and Wall-Mounted Traffic Control and Informational Signs: As approved by authority having jurisdiction, Texas Manual on Uniform Traffic Control Devices (TMUTCD), and/or TxDOT Standards shown in Plans.
   2. Traffic Control Signals: As approved by local jurisdictions.
   3. Traffic Cones and Drums: As approved by authority having jurisdiction.
   4. Flares and Lights: As approved by authority having jurisdiction.
   5. Flagperson Equipment: As required by authority having jurisdiction.
C. Flagpersons: Provide trained and equipped flagpersons to regulate traffic when construction operations or traffic encroach on public traffic lanes.
D. Flares and Lights: Use during hours of low visibility to delineate traffic lanes and guide traffic.

E. Haul Routes
   1. Consult with authority having jurisdiction, establish public thoroughfares to use for haul routes and site access.
   2. Drawings indicate haul routes designated by authorities having jurisdiction for use of construction traffic.
   3. Confine construction traffic to designated haul routes.
   4. Provide traffic control at critical areas of haul routes to regulate traffic and minimize interference with public traffic.
F. Traffic Signs And Signals
   1. Provide signs at approaches to Site and on-site, crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
   2. Provide, operate, and maintain automatic traffic control signals to direct and maintain orderly flow of traffic in areas under Contractor's control and areas affected by Contractor operations.
   3. Relocate as Work progresses to maintain effective traffic control.
G. Removal
   1. Remove equipment and devices when no longer required.
   2. Repair damage caused by installation.

3. Remove post settings to 2-foot depth.

1.15 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas as well as protect existing facilities and adjacent properties from damage from construction operations. Allow for Owner's use of Site.
B. Provide barricades and covered walkways required by authorities having jurisdiction for:
   1. Public rights-of-way.
   2. Public access to existing building.
C. Replace damaged items condition to original condition and protect items designated to remain:
   1. Trees.
   2. Shrubbery.
   3. Lawns.
D. Protect Site improvements including but not limited to pavements, walkways, and drainage structures from damage. Replace damaged site improvements to original condition.
E. Protect non-owned vehicular traffic and stored materials from damage.

1.16 FENCING

A. Construction: Commercial-grade chain-link fence.
B. Provide 6-foot-high fence around construction site equipped with vehicular and pedestrian gates with locks.

1.17 ENCLOSURES

A. Provide temporary insulated weathertight closure of exterior openings to accommodate acceptable working conditions and protection for products, allow temporary heating, cooling, ventilation, and maintenance of required ambient temperatures identified in individual Specifications, and prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.18 SECURITY

A. Security Program
   1. Protect Work andexisting premises from theft, vandalism, and unauthorized entry.
   2. Initiate program at Project mobilization.
   3. Maintain program throughout construction period until Owner occupancy.
B. Entry Control
   1. Restrict entrance of persons and vehicles into Project Site.
   2. Allow entrance only to authorized persons with proper identification.
   3. Maintain log of workers and visitors and make available to Owner on request.

1.19 WATER CONTROL

A. Grade site to drain.
B. Maintain excavations free of water.
C. Provide, operate, and maintain pumping equipment.
D. Protect Site from puddling and running water. Provide water barriers required to protect site from soil erosion.

E. Provide water barriers required to protect existing buildings from puddling, ponding, or other water accumulation that may damage foundations or other subsurface construction.

1.20 DUST CONTROL

A. Execute Work to minimize raising dust from construction operations.
B. Provide positive means to prevent airborne dust from dispersing into atmosphere.

1.21 EROSION AND SEDIMENT CONTROL

A. Plan and execute construction to control surface drainage from cuts, fills, borrow, and waste disposal areas. Prevent erosion and sedimentation.
B. Minimize surface area of bare soil exposed at one time.
C. Provide temporary measures including berms, dikes, drains, and other devices to prevent water flow resulting in erosion.
D. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.
E. Periodically inspect earthwork to detect evidence of erosion and sedimentation. Promptly apply corrective measures.
F. Comply with site Section 01 57 23 "Temporary Stormwater Pollution Control."

1.22 NOISE CONTROL

A. Provide methods, means, and facilities to minimize disruption of Owner operations and activities due to noise produced by construction operations.
B. Conduct activities to produce noise that may interfere with Owner operations and activities only when agreed to by Owner.

1.23 PEST AND RODENT CONTROL

A. Provide methods, means, and facilities to prevent the following from damaging Work:
   1. Pests.
   2. Insects.
   3. Rodents.

1.24 POLLUTION CONTROL

A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
B. Comply with pollution and environmental control requirements of authorities having jurisdiction.

1.25 PROTECT WORK

A. Protect installed Work and provide special protection where specified in Specifications.
B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to minimize damage.
C. Provide protective coverings at openings in walls, roof, and soffits.
D. Protect finished walkways, drives, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic/activity necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
F. Prohibit traffic from landscaped areas.

1.26 REMOVE UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary above-grade utilities, equipment, facilities, and materials as soon as permanent facilities can be utilized.
B. Remove risers for underground utilities to minimum 2-foot depth and cap.
C. Remove buried equipment, facilities, and materials completely to minimum 2-foot depth and cap.
D. Backfill excavations as specified in other sections and grade site as indicated.
E. Clean and repair damage caused by installation or temporary Work.
F. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.
G. Remove when no longer needed:
   1. Office.
   2. Storage sheds.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 57 23 - TEMPORARY STORMWATER POLLUTION CONTROL

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Contractor responsibilities.
   2. Submittals.
   3. Erosion and sediment controls.

B. Related Requirements:
   1. Local jurisdiction requirements.
   2. Division 01 Specification Sections apply to Work of this Section.

1.2 CONTRACTOR RESPONSIBILITIES

A. Contractor is solely responsible for meeting all TCEQ and EPA requirements for stormwater pollution prevention:
   1. Develop a Stormwater Pollution Prevention Plan (SWPPP) if not provided;
   2. File Notice of Intent (NOI) and include Owner as an "Operator;"
   3. Install and maintain all erosion control measures and best management practices (BMPs);
   4. Perform inspections and prepare reports; and
   5. File Notice of Termination (NOT).

1.3 SUBMITTALS

A. Submit to Engineer, SWPPP, Submittal Procedures, and all other related documentation conforming to Section 01 33 00 "Submittal Procedures."

1.4 EROSION AND SEDIMENT CONTROLS

A. Implement structural measures to divert flows from exposed soils, temporarily store flows, or otherwise limit run-off and discharge of pollutants from exposed areas of site. Timely implement structural practices as specified in SWPPP during construction to minimize erosion and sediment run-off.

B. Stabilized Ingress/Egress:
   1. Provide stabilized access to/from construction site as soon as practical per SWPPP.
   2. Ensure any soil tracked off-site is cleaned from existing roads, alleys, and any adjacent properties as soon as possible. Check for any pollutants (mud, silt, sand, cement, construction materials, etc.) tracked or washed off-site and perform necessary clean-up measures at the end of each work day.

C. Silt Fences/Diversion Berms: Provide as a temporary structural practice to minimize erosion and sediment runoff, as necessary. Properly install silt fences and/or diversion berms to effectively retain sediment immediately after completing each phase of Work where erosion would occur as sheet and rill erosion (clearing and grubbing, excavation, embankment, grading, etc.).

D. Sand/Gravel Bags: Provide as a temporary structural practice to minimize erosion and sediment runoff. Properly place bags to effectively retain sediment immediately after completing each phase of Work (clearing and grubbing, excavation, embankment, grading, etc.) in each independent runoff area (after clearing and grubbing between ridge and drain, place bags as Work progresses, remove/replace/relocate bags as needed for Work to progress in drainage area). Replace sand/gravel bags no longer in good condition, as needed.

E. Site Stabilization:
   1. Minimize surface area of base soil material at one time.
   2. Implement necessary stabilization measures including:
      a. Temporary/permanent seeding/sodding;
      b. Mulching;
      c. Geotextiles;
      d. Vegetative buffer strips;
      e. Paving;
      f. Rock riprap; and/or
      g. Rock-filled gabions.
      h. Inlet protection.
   3. Implement stabilization measures per SWPPP.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION


PACKET 7.232 September 12, 2023
PACKET 11.234 November 14, 2023

# SECTION 01 60 00 - PRODUCT REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Products.
   2. Product delivery requirements.
   3. Product storage and handling requirements.

B. Related Sections:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 PRODUCTS

A. At minimum, comply with specified requirements and reference standards.

B. Specified products define standard of quality, type, function, dimension, appearance, and performance required.

C. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise. Confirm manufacturer production capacity can provide sufficient product, on time, to meet Project requirements.

### 1.3 PRODUCT DELIVERY REQUIREMENTS

A. Transport and handle products per manufacturer instructions.

B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.

C. Provide equipment and personnel to handle products. Prevent soiling, disfigurement, or damage.

D. Owner will not assist in offloading or accepting product deliveries.

### 1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

A. Store and protect products per manufacturer instructions.

B. Store products with seals and labels intact and legible.

C. Store sensitive products in weathertight, climate-controlled enclosures in an environment suitable to product.

D. For exterior storage of fabricated products, place products on sloped supports above ground.

E. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

F. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.

G. Provide equipment and personnel to store products. Prevent soiling, disfigurement, or damage.

H. Arrange product storage to permit access for inspection. Periodically inspect to verify products are undamaged and maintained in acceptable condition.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 70 00 - EXECUTION AND CLOSEOUT REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Surveying.
   2. Closeout procedures.
   3. Starting systems.
   4. Demonstration and instructions.
   5. Testing, adjusting, and balancing.
   6. Project record documents.
   7. Operation and maintenance data.
   8. Manual for materials and finishes.
   9. Manual for equipment and systems.
   10. Spare parts and maintenance products.
   11. Product warranties and product bonds.
   12. Examination.
   13. Preparation.
   14. Execution.
   15. Protecting installed construction.
   16. Final cleaning.

B. Related Sections:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 SURVEYING

A. Employ land surveyor registered in State of Texas and acceptable to Engineer.

B. Locate and protect survey control and reference points. Promptly notify Engineer of discrepancies discovered.

C. Control datum for survey is indicated on Drawings.

D. Verify setbacks, easements, and rights of way. Confirm Drawing dimensions and elevations.

E. Provide field engineering services. Establish elevations, lines, and levels using recognized engineering survey practices.

F. Submit copy of Site Drawing signed by land surveyor certifying elevations and locations of Work are per Contract Documents.

G. Maintain complete and accurate log of control and survey Work as Work progresses.

H. Protect survey control points before starting Site Work. Preserve permanent reference points during construction.

I. Promptly report to Engineer loss or destruction of reference point or relocation required because of changes in grades or other reasons.

J. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Engineer.

1.3 CLOSEOUT PROCEDURES

A. Prerequisites to Substantial Completion. Complete following items before requesting Certification of Substantial Completion either for entire Work or portions of Work:
   1. Submit maintenance manuals, Project Record Documents, and other similar final record data per this Section.
   2. Complete facility startup, testing, adjusting, balancing systems and equipment, demonstrations, and instructions to Owner's operating and maintenance personnel as specified per this Section.
   3. Conduct inspection to establish basis for request that Work is substantially complete. Create comprehensive list (initial punch list) indicating items to complete or correct, value of incomplete or nonconforming Work, reason for incompletion, and date of anticipated completion for each item. Include copy of list with request for Certificate of Substantial Completion.
   4. Obtain and submit releases enabling Owner's full, unrestricted use of Project and access to services and utilities. Include certificate of occupancy, operating certificates, and similar releases from authorities having jurisdiction and utility companies.
   5. Deliver tools, spare parts, extra stocks of material, and similar physical items to Owner.
   6. Change locks and transmit keys directly to Owner. Advise Owner's personnel of change-over in security provisions.
   7. Discontinue or change over and remove temporary facilities and services from Project Site along with construction tools, mockups, and similar elements.
   8. Perform final cleaning per this Section.

B. Substantial Completion Inspection:
   1. When Contractor considers Work substantially complete, submit to Engineer and Owner:
      a. Written certificate that Work, or designated portion, is substantially complete.
      b. List of items to complete or correct (initial punch list).
   2. Within 7 days after receipt of request for Substantial Completion, Engineer and Owner will inspect to determine if Work or designated portion is substantially complete.
   3. If Engineer and Owner determine Work is NOT substantially complete:
      a. Engineer and Owner will promptly notify Contractor, in writing, stating reasons for opinion.
      b. Contractor shall remedy deficiencies in Work and send second written request for Substantial Completion to Engineer and Owner.
      c. Engineer and Owner will reinspect Work.
      d. Repeat until Work passes inspection.
   4. When Engineer and Owner finds Work is substantially complete, they will:
      a. Prepare Certificate of Substantial Completion on EJCDC C-625, Certificate of Substantial Completion, accompanied by Contractor's list of items to complete or correct as verified and amended by Engineer and Owner (final punch list).
      b. Submit Certificate to Owner and Contractor for written acceptance of responsibilities assigned in Certificate.
   5. After Work is substantially complete:
      a. Allow Owner occupancy of Project under provisions stated in Certificate of Substantial Completion.

b. Complete Work listed for completion or correction within time stipulated.

C. Prerequisites for Final Completion. Complete following items before requesting final acceptance and final payment:
   1. When Contractor considers Work complete, submit written certification that:
      a. Contract Documents were reviewed.
      b. Work was examined for compliance with Contract Documents.
      c. Work was completed per Contract Documents.
      d. Work is complete and ready for final inspection.
   2. Submit:
      a. Final punch list indicating all items are complete or correct.
      b. Final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations, where required.
      c. Specified warranties, workmanship/maintenance bonds, maintenance agreements, and other similar documents.
      d. Accounting statement for final changes to Contract Sum.
      e. Contractor's Affidavit of Payment of Debts and Claims on Contractor form.
      f. Contractor Affidavit of Release of Liens on Contractor form.
      g. Consent of Surety to Final Payment on Contractor form.
   3. Perform final cleaning for Contractor-soiled areas per this Section.

D. Final Completion Inspection:
   1. Within 7 days after receipt of request for final inspection, Engineer and Owner will inspect to determine if Work or designated portion is complete.
   2. If Engineer and Owner consider Work incomplete or defective:
      a. Engineer and Owner will promptly notify Contractor, in writing, listing incomplete or defective Work.
      b. Contractor shall remedy stated deficiencies and send second written request to Engineer and Owner that Work is complete.
      c. Engineer and Owner will reinspect Work.
      d. Redo and Inspect Deficient Work: Repeated until Work passes inspection.
      e. Engineer and Owner inspection.

## 1.4 STARTING SYSTEMS

A. Coordinate schedule for startup of various equipment and systems.

B. Notify Engineer 7 days before startup of each item.

C. Verify each piece of equipment or system was checked for proper lubrication, drive rotation, belt tension, control sequence, and conditions which may cause damage.

D. Verify tests, meter readings, and electrical characteristics agree with those required by equipment or system manufacturer.

E. Verify wiring and support components for equipment are complete and tested.

F. Execute startup under supervision of manufacturer representative or Contractor personnel per manufacturer's instructions.

G. When specified in individual Specifications, require manufacturer to provide authorized representative who will be present at Site to inspect, check, and approve equipment or system installation before startup and supervise placing equipment or system in operation.

H. Submit a written report per Section 01 33 00 "Submittal Procedures," that equipment or system has properly installed and functioning correctly.

1.5 DEMONSTRATION AND INSTRUCTIONS

A. Demonstrate operation and maintenance (O&M) of products to Owner personnel 2 weeks before date of Substantial Completion.
B. Demonstrate Project equipment by manufacturer's representative who is knowledgeable about Project.
C. Use O&M manuals as basis for instruction. Review contents of manual with Owner personnel in detail to explain all aspects of operation and maintenance.
D. Demonstrate startup, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at agreed time, at equipment location.
E. Prepare and insert additional data in O&M manuals when need for additional data is apparent during instruction.
F. Required instruction time for each item of equipment and system is specified in individual Specifications.

1.6 TESTING, ADJUSTING, AND BALANCING

A. Owner will appoint and employ services of independent firm to perform testing, adjusting, and balancing. Contractor shall pay for services from cash allowance specified in Section 01 20 00 "Price and Payment Procedures."
B. Reports will be submitted by independent firm to Engineer indicating observations and results of tests and indicating compliance or noncompliance with requirements of Contract Documents.

1.7 PROJECT RECORD DOCUMENTS

A. Maintain on-site one set of these record documents and record actual revisions to Work:
   1. Drawings.
   2. Specifications.
   3. Addenda.
   4. Change Orders and other modifications to Contract.
   5. Reviewed Shop Drawings, product data, and Samples.
   6. Manufacturer's instruction for assembly, installation, and adjusting.
B. Ensure entries are complete and accurate enabling future reference by Owner.
C. Store record documents separate from documents used for construction.
D. Record information concurrent with construction progress not less than weekly.
E. Specifications: Legibly mark and record, at each product Section, description of actual products installed including:
   1. Manufacturer name, product model, and number.
   2. Product substitutions or alternates used.
   3. Changes made by Addenda and modifications.
F. Record Drawings. Legibly mark each item to record actual construction.
   1. Include Contract modifications such as Addenda, supplementary instructions, change directives, field orders, minor changes in Work, and change orders.
   2. Include locations of concealed elements of Work.
   3. Identify depth of buried utility lines and provide dimensions showing distances from permanent facility components parallel to utilities.
   4. Dimension ends, corners, and junctions of buried utilities to permanent facility components using triangulation.

5. Identify and locate existing buried or concealed items encountered during Project.
6. Measured depths of foundations in relation to finish floor datum.
7. Measured horizontal and vertical locations of underground utilities and appurtenances referenced to permanent surface improvements.
8. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of Work.
9. Field changes of dimension and detail.
10. Details not on original Drawings.

G. Submit marked-up paper copy documents to Engineer with claim for final Application for Payment.

H. Submit PDF electronic files of marked-up documents to Engineer with claim for final Application for Payment.

## 1.8 OPERATION AND MAINTENANCE DATA

A. Submit in PDF composite electronic indexed file.

B. Submit data bound in 8-1/2- by 11-inch text pages, 3 D-side-ring binders with durable plastic covers.

C. Prepare binder cover with printed *Operation and Maintenance Instructions*, title of Project, and subject matter of binder when multiple binders required.

D. Internally subdivide binder contents with permanent page dividers, logically organized as described, with tab titling clearly printed under reinforced laminated plastic tabs.

E. Drawings: Provide with reinforced punched binder tab. Bind in with text. Fold larger Drawings to size of text pages.

F. Contents: Prepare Table of Contents (TOC) for each volume, with each product or system description identified, typed on white paper, in three parts as:

1. Part 1: Directory, listing names, addresses, and phone numbers of Engineer, Contractor, subcontractors, and major equipment suppliers.
2. Part 2: O&M instructions, arranged by system and subdivided by Specification Section. For each category, identify names, addresses, and phone numbers of subcontractors and suppliers. Include:
   a. Significant design criteria.
   b. List of equipment.
   c. Parts list for each component.
   d. Operating instructions.
   e. Maintenance instructions for equipment and systems.
   f. Maintenance instructions for finishes including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
   g. Safety precautions to take when operating and maintaining or working near equipment.
3. Part 3: Project documents and certificates, including:
   a. Shop Drawings and product data.
   b. Certificates.
   c. Originals of warranties.

## 1.9 MANUAL FOR MATERIALS AND FINISHES

A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Engineer will review draft and return one copy with comments.

B. For equipment or component parts of equipment put into service during construction and operated by Owner, submit documents within 10 days after acceptance.

C. Submit one copy of completed volumes 15 days before final inspection. Draft copy reviewed and returned after final inspection, with Engineer comments. Revise content of document sets as required before final submission.
D. Submit two sets of revised final volumes within 10 days after final inspection.
E. Submit in PDF composite electronic indexed file of final manual within 10 days after final inspection.
F. Building Products, Applied Materials, and Finishes: Include product data with catalog number, size, composition, and color and texture designations. Include information for reordering custom-manufactured products.
G. Instructions for Care and Maintenance: Include manufacturer recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
H. Moisture Protection and Weather-Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Include recommendations for inspections, maintenance, and repair.
I. Additional requirements as specified in individual product Specifications.
J. Include listing in TOC for design data with tabbed fly sheet and space for insertion of data.

1.10 MANUAL FOR EQUIPMENT AND SYSTEMS

A. Submit two copies of preliminary draft or proposed formats and outlines of contents before Work. Engineer will review draft and return one copy with comments.
B. For equipment or component parts of equipment put into service during construction and operated by Owner, submit documents within 10 days after acceptance.
C. Submit one copy of completed volumes 15 days before final inspection. Draft copy will be reviewed and returned after final inspection with Engineer comments. Revise content of document sets as required before final submission.
D. Submit two sets of revised final volumes within 10 days after final inspection.
E. Submit in PDF composite electronic indexed file of final manual within 10 days after final inspection.
F. Each System and Item of Equipment: Include description of unit/system and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves with engineering data and tests, complete nomenclature, and model number of replaceable parts.
G. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications by label machine.
H. Include color-coded wiring diagrams as installed.
I. Operating Procedures: Include startup, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shutdown, and emergency instructions. Include summer, winter, and special operating instructions.
J. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
K. Include servicing and lubrication schedule and list of lubricants required.
L. Include manufacturer-printed operation and maintenance instructions.
M. Include sequence of operation by controls manufacturer.
N. Include original manufacturer parts list, illustrations, assembly drawings, and diagrams required for maintenance.
O. Include control diagrams by controls manufacturer as installed.
P. Include Contractor coordination Drawings with color-coded piping diagrams as installed.

Q. Include charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
R. Include list of original manufacturer's spare parts, current prices, and recommended quantities maintained in storage.
S. Include test and balancing reports per Section 01 40 00 "Quality Requirements."
T. Additional requirements as specified in individual product Specifications.
U. Include listing in TOC for design data with tabbed dividers and space for insertion of data.

1.11 SPARE PARTS AND MAINTENANCE PRODUCTS

A. Furnish spare parts, maintenance, and extra products in quantities specified in individual Specifications.
B. Deliver to place in location as directed by Owner. Obtain receipt before final payment.

1.12 PRODUCT WARRANTIES AND PRODUCT BONDS

A. Obtain warranties and bonds executed by responsible subcontractors, suppliers, and manufacturers within 10 days after completion of applicable item of Work.
B. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
C. Verify documents are in proper form, contain full information, and are notarized.
D. Co-execute submittals when required.
E. Include TOC and assemble in three D-side-ring binders with durable plastic cover.
F. Submit before final Application for Payment.
G. Time of Submittals:
   1. For equipment or component parts of equipment put into service during construction with Owner permission, submit documents within 10 days after acceptance.
   2. Make other submittals within 10 days after date of Substantial Completion before final Application for Payment.
   3. For items of Work for which acceptance is delayed beyond Substantial Completion, submit within 10 days after acceptance listing date of acceptance as beginning of warranty or bond period.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verify existing Site conditions and substrate surfaces are acceptable for subsequent Work.
B. Beginning new Work means acceptance of existing conditions.
C. Verify existing substrate can structurally support or attach new Work applied.
D. Examine and verify specific conditions described in individual Specifications.
E. Verify utility services are available with correct characteristics and in correct locations.

3.2 PREPARATION

A. Clean substrate surfaces before applying next material or substance per manufacturer instructions.

B. Seal cracks or openings of substrate before applying next material or substance.
C. Apply manufacturer-required or -recommended substrate primer, sealer, or conditioner before applying new material or substance in contact or bond.

3.3 EXECUTION

A. Comply with manufacturer installation instructions performing each step in sequence. Maintain one set of manufacturer installation instructions at Project Site during installation and until completion of construction.
B. When manufacturer installation instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
C. Verify field measurements are as indicated on approved Shop Drawings or as instructed by manufacturer.
D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
    1. Secure Work true-to-line and level and within specified tolerances, or if not specified, industry-recognized tolerances.
    2. Physically separate products in place, provide electrical insulation, or provide protective coatings to prevent galvanic action or corrosion between dissimilar metals.
    3. Exposed Joints: Provide uniform joint width and arrange to obtain best visual effect. Refer questionable visual-effect choices to Engineer for final decision.
E. Allow for expansion of materials and building movement.
F. Climatic Conditions and Project Status: Install each unit of Work under conditions to ensure best possible results in coordination with entire Project.
    1. Isolate each unit of Work from incompatible Work necessary to prevent deterioration.
    2. Coordinate enclosure of Work with required inspections and tests to minimize necessity of uncovering Work for those purposes.
G. Mounting Heights: Where not indicated, mount individual units of Work at industry-recognized standard mounting heights for particular application indicated.
    1. Refer questionable mounting heights choices to Engineer for final decision.
    2. Elements Identified as Accessible to Handicapped: Comply with applicable codes and regulations.
H. Adjust operating products and equipment to ensure smooth and unhindered operation.
I. Clean and perform maintenance on installed Work as frequently as necessary through remainder of construction. Lubricate operable components recommended by manufacturer.

3.4 PROTECTING INSTALLED CONSTRUCTION

A. Protect installed Work and provide special protection where specified.
B. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.
C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
D. Use durable sheet materials to protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects.

E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
F. Prohibit traffic from landscaped areas.

## 3.5 FINAL CLEANING

A. Execute final cleaning before final Project assessment. Employ experienced personnel or professional cleaning firm.
B. Clean interior and exterior glass and surfaces exposed to view. Remove temporary labels, stains, and foreign substances. Polish transparent and glossy surfaces and vacuum carpeted and soft surfaces.
C. Clean equipment and fixtures to sanitary condition with appropriate cleaning materials.
D. Clean filters of operating equipment.
E. Clean debris from roofs, gutters, downspouts, and drainage systems.
F. Clean site. Sweep paved areas and rake landscaped surfaces clean.
G. Remove waste and surplus materials, rubbish, and construction facilities from site.

END OF SECTION


PACKET 7.243 September 12, 2023
PACKET 11.245 November 14, 2023

# SECTION 03 10 00 - CONCRETE FORMING AND ACCESSORIES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Form-facing material for cast-in-place concrete.
   2. Shoring, bracing, and anchoring.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 32 13 13 "Concrete Paving" for formwork related to concrete pavement and walks.

### 1.2 DEFINITIONS

A. Form-Facing Material: Temporary structure or mold for the support of concrete while the concrete is setting and gaining sufficient strength to be self-supporting.

B. Formwork: The total system of support of freshly placed concrete including the mold or sheathing that contacts the concrete as well as supporting members, hardware, and necessary bracing.

### 1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.
   1. Review the following:
      a. Special inspection and testing and inspecting agency procedures for field quality control.
      b. Construction, movement, contraction, and isolation joints
      c. Forms and form-removal limitations.
      d. Anchor rod and anchorage device installation tolerances.

### 1.4 ACTION SUBMITTALS

A. Product Data: For each of the following:
   1. Exposed surface form-facing material.
   2. Concealed surface form-facing material.
   3. Form ties.
   4. Form-release agent.

### 1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For testing and inspection agency.

B. Field quality-control reports.

C. Minutes of preinstallation conference.

## PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Concrete Formwork: Design, engineer, erect, shore, brace, and maintain formwork, shores, and reshores in accordance with ACI 301 to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads so that resulting concrete conforms to the required shapes, lines, and dimensions.
   1. Design wood panel forms in accordance with APA's "Concrete Forming Design/Construction Guide."
   2. Design formwork to limit deflection of form-facing material to 1/240 of center-to-center spacing of supports.

2.2 FORM-FACING MATERIALS

A. As-Cast Surface Form-Facing Material:
   1. Provide continuous, true, and smooth concrete surfaces.
   2. Furnish in largest practicable sizes to minimize number of joints.
   3. Acceptable Materials: As required to comply with Surface Finish designations specified in Section 03 30 00 "Cast-In-Place Concrete" and as follows:
      a. Plywood, metal, or other approved panel materials.
      b. Exterior-grade plywood panels, suitable for concrete forms, complying with DOC PS 1 and as follows:
         1) APA Structural 1 Plyform, B-B or better; mill oiled and edge sealed.

B. Concealed Surface Form-Facing Material: Lumber, plywood, metal, plastic, or another approved material.
   1. Provide lumber dressed on at least 2 edges and 1 side for tight fit.

2.3 RELATED MATERIALS

A. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4-inch by 3/4-inch, minimum.

B. Form-Release Agent: Commercially formulated form-release agent that does not bond with, stain, or adversely affect concrete surfaces and does not impair subsequent treatments of concrete surfaces.
   1. Formulate form-release agent with rust inhibitor for steel form-facing materials.
   2. Form release agent for form liners shall be acceptable to form liner manufacturer.

C. Form Ties: Factory-fabricated, removable or snap-off, glass-fiber-reinforced plastic, or metal form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.
   1. Furnish ties that, when removed, leave holes no larger than 1 inch in diameter in concrete surface.

## PART 3 - EXECUTION

3.1 INSTALLATION OF FORMWORK

A. Comply with ACI 301.

B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated within tolerance limits of ACI 117, and to comply with the Surface Finish designations specified in Section 03 30 00 "Cast-In-Place Concrete" for as-cast finishes.

C. Limit concrete surface irregularities as follows:
   1. Surface Finish-2.0: ACI 117 Class B, 1/4-inch.

D. Construct forms tight enough to prevent loss of concrete mortar.
   1. Minimize joints.
   2. Exposed Concrete: Symmetrically align joints in forms.

E. Construct removable forms for easy removal without hammering or prying against concrete surfaces.
   1. Provide crush or wrecking plates where stripping may damage cast-concrete surfaces.
   2. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.
   3. Install keyways, reglets, recesses, and other accessories for easy removal.

F. Do not use rust-stained, steel, form-facing material.

G. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces.
   1. Provide and secure units to support screed strips
   2. Use strike-off templates or compacting-type screeds.

H. Provide temporary openings for cleanouts and inspection ports where interior area of formwork is inaccessible.
   1. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar.
   2. Locate temporary openings in forms at inconspicuous locations.

I. Chamfer exterior corners and edges of permanently exposed concrete.

J. At construction joints, overlap forms onto previously placed concrete not less than 12 inches.

K. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work.
   1. Determine sizes and locations from trades providing such items.
   2. Obtain written approval of Engineer prior to forming openings not indicated on Drawings.

L. Construction and Movement Joints:
   1. Construct joints true to line with faces perpendicular to surface plane of concrete.
   2. Install so strength and appearance of concrete are not impaired at locations indicated or as approved by Architect.
   3. Place joints perpendicular to main reinforcement.
   4. Locate joints for beams, slabs, joists, and girders in the middle third of spans.
      a. Offset joints in girders a minimum distance of twice the beam width from a beam-girder intersection.
   5. Locate horizontal joints in walls and columns at underside of floors, slabs, beams, and girders and at the top of footings or floor slabs.
   6. Space vertical joints in walls as indicated on Drawings.
      a. Locate joints beside piers integral with walls, near corners, and in concealed locations where possible.

M. Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection.
   1. Locate ports and openings in bottom of vertical forms, in inconspicuous location, to allow flushing water to drain.
   2. Close temporary ports and openings with tight-fitting panels, flush with inside face of form, and neatly fitted so joints will not be apparent in exposed concrete surfaces.

N. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.

O. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.

P. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

## 3.2 INSTALLATION OF EMBEDDED ITEMS

A. Place and secure anchorage devices and other embedded items required for adjoining Work that is attached to or supported by cast-in-place concrete.
   1. Use setting Drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
   2. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of AISC 303.
   3. Clean embedded items immediately prior to concrete placement.

## 3.3 REMOVING AND REUSING FORMS

A. Formwork for sides of beams, walls, columns, and similar parts of the Work that does not support weight of concrete may be removed after cumulatively curing at not less than 50 degrees F for 24 hours after placing concrete. Concrete has to be hard enough to not be damaged by form-removal operations, and curing and protection operations need to be maintained.

B. Clean and repair surfaces of forms to be reused in the Work.
   1. Split, frayed, delaminated, or otherwise damaged form-facing material are unacceptable for exposed surfaces.
   2. Apply new form-release agent.

C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints.
   1. Align and secure joints to avoid offsets.
   2. Do not use patched forms for exposed concrete surfaces unless approved by Architect.

## 3.4 FIELD QUALITY CONTROL

A. Special Inspections: Owner will engage a special inspector and qualified testing and inspecting agenc to perform field tests and inspections and prepare test reports.

B. Inspections:
   1. Inspect formwork for shape, location, and dimensions of the concrete member being formed.

END OF SECTION

# SECTION 03 20 00 - CONCRETE REINFORCING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Steel reinforcement bars.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.
   1. Review the following:
      a. Special inspection and testing and inspecting agency procedures for field quality control.
      b. Construction contraction and isolation joints.
      c. Steel-reinforcement installation.

### 1.3 ACTION SUBMITTALS

A. Product Data: For the following:
   1. Each type of steel reinforcement.
   2. Bar supports.
   3. Mechanical splice couplers.
B. Sustainable Design Submittals.
C. Shop Drawings: Comply with ACI SP-066:
   1. Include placing Drawings that detail fabrication, bending, and placement.
   2. Include bar sizes, lengths, materials, grades, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, location of splices, lengths of lap splices, details of mechanical splice couplers, tie spacing, and supports for concrete reinforcement.
D. Construction Joint Layout: Indicate proposed construction joints required to build the structure.
   1. Location of construction joints is subject to approval of the Architect.

### 1.4 INFORMATIONAL SUBMITTALS

A. Qualification Statements: For testing and inspection agency.
B. Material Test Reports: For the following from a qualified testing agency:
   1. Steel Reinforcement:
      a. For reinforcement to be welded, mill test analysis for chemical composition and carbon equivalent of the steel in accordance with ASTM A706/A706M.
   2. Mechanical splice couplers.
C. Field quality-control reports.
D. Minutes of preinstallation conference.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage.
   1. Store reinforcement to avoid contact with earth.

**PART 2 - PRODUCTS**

2.1 STEEL REINFORCEMENT

A. Reinforcing Bars: ASTM A615, Grade 60, deformed.

2.2 REINFORCEMENT ACCESSORIES

A. Joint Dowel Plate: PNA-Diamond Dowel system.
B. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded-wire reinforcement in place.
   1. Manufacture bar supports from steel wire or plastic in accordance with CRSI's "Manual of Standard Practice."
      a. For concrete surfaces exposed to view, where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire, all-plastic bar supports, or CRSI Class 2 stainless steel bar supports.
C. Mechanical Splice Couplers: ACI 318 Type 2, same material of reinforcing bar being spliced; standard bar lock.
D. Steel Tie Wire: ASTM A1064, annealed steel, not less than 0.0508-inch in diameter.
   1. Finish: Plain, ASTM A884, Class A, Type 1.

2.3 FABRICATING REINFORCEMENT

A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

**PART 3 - EXECUTION**

3.1 PREPARATION

A. Protection of In-Place Conditions:
   1. Do not cut or puncture vapor retarder.
   2. Repair damage and reseal vapor retarder before placing concrete.
B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that reduce bond to concrete.

3.2 INSTALLATION OF STEEL REINFORCEMENT

A. Comply with CRSI's "Manual of Standard Practice" for placing and supporting reinforcement.
B. Accurately position, support, and secure reinforcement against displacement.
   1. Locate and support reinforcement with bar supports to maintain minimum concrete cover.
   2. Do not tack weld crossing reinforcing bars.

C. Preserve clearance between bars of not less than 1 inch, not less than one bar diameter, or not less than 1-1/3-times size of large aggregate, whichever is greater.
D. Provide concrete coverage in accordance with ACI 318.
E. Set wire ties with ends directed into concrete not toward exposed concrete surfaces.
F. Splices: Lap splices as indicated on Drawings.
   1. Bars indicated to be continuous and all vertical bars shall be lapped not less than 36 bar diameters at splices or 24 inches, whichever is greater.
   2. Stagger splices in accordance with ACI 318.
   3. Mechanical Splice Couplers: Install in accordance with manufacturer's instructions.

3.3 JOINTS

A. Construction Joints: Install so strength and appearance of concrete are not impaired at locations indicated or as approved by Architect.
   1. Place joints perpendicular to main reinforcement.
   2. Do not continue reinforcement across construction joints unless otherwise indicated.
B. Doweled Joints: Install dowel plates and support assemblies at joints where indicated. Lubricate or asphalt coat one-half of plates length to prevent concrete bonding to one side of joint.

3.4 INSTALLATION TOLERANCES

A. Comply with ACI 117.

3.5 FIELD QUALITY CONTROL

A. Special Inspections: Owner will engage a special inspector and qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.
B. Inspections:
   1. Steel-reinforcement placement.
   2. Steel-reinforcement mechanical splice couplers.

END OF SECTION

# SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Cast-in-place concrete, including concrete materials, mixture design, placement procedures, and finishes.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 03 10 00 "Concrete Forming and Accessories" for form-facing materials.
   3. Section 03 20 00 "Concrete Reinforcing" for steel reinforcing bars.
   4. Section 31 20 00 "Earth Moving" for drainage fill under slabs-on-ground.
   5. Section 32 13 13 "Concrete Paving" for concrete pavement and walks.

### 1.2 DEFINITIONS

A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash; materials subject to compliance with requirements.

B. Water/Cement Ratio (w/cm): The ratio by weight of water to cementitious materials.

### 1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.
   1. Require representatives of each entity directly concerned with cast-in-place concrete to attend including the following:
      a. Contractor's superintendent.
      b. Independent testing agency responsible for concrete design mixtures.
      c. Ready-mix concrete manufacturer.
      d. Concrete Subcontractor.
   2. Review the following:
      a. Special inspection and testing and inspecting agency procedures for field quality control.
      b. Construction joints, control joints, isolation joints, and joint-filler strips.
      c. Semirigid joint fillers.
      d. Vapor-retarder installation.
      e. Anchor rod and anchorage device installation tolerances.
      f. Cold and hot weather concreting procedures.
      g. Concrete finishes and finishing.
      h. Curing procedures.
      i. Forms and form-removal limitations.
      j. Methods for achieving specified floor and slab flatness and levelness.
      k. Floor and slab flatness and levelness measurements.
      l. Concrete repair procedures.
      m. Concrete protection.

1.4 ACTION SUBMITTALS

A. Product Data: For each of the following.
   1. Portland cement.
   2. Fly ash.
   3. Blended hydraulic cement.
   4. Aggregates.
   5. Admixtures:
      a. Include limitations of use including restrictions on cementitious materials, supplementary cementitious materials, air entrainment, aggregates, temperature at time of concrete placement, relative humidity at time of concrete placement, curing conditions, and use of other admixtures.
   6. Vapor retarders.
   7. Curing materials.
      a. Include documentation from color pigment manufacturer, indicating that proposed methods of curing are recommended by color pigment manufacturer.
   8. Joint fillers.
   9. Repair materials.

B. Sustainable Design Submittals:

C. Design Mixtures: For each concrete mixture, include the following:
   1. Mixture identification.
   2. Minimum 28-day compressive strength.
   3. Durability exposure class.
   4. Maximum w/cm.
   5. Slump limit.
   6. Air content.
   7. Nominal maximum aggregate size.
   8. Indicate amounts of mixing water to be withheld for later addition at Project site if permitted.
   9. Intended placement method.
   10. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

D. Shop Drawings:
   1. Construction Joint Layout: Indicate proposed construction joints required to construct the structure.
      a. Location of construction joints is subject to approval of the Engineer.

E. Concrete Schedule: For each location of each Class of concrete indicated in "Concrete Mixtures" Article including the following:
   1. Concrete Class designation.
   2. Location within Project.
   3. Exposure Class designation.
   4. Formed Surface Finish designation and final finish.
   5. Final finish for floors.
   6. Curing process.

## 1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For the following:
   1. Installer: Include copies of applicable ACI certificates.
   2. Ready-mixed concrete manufacturer.
   3. Testing agency: Include copies of applicable ACI certificates.

B. Material Certificates: For each of the following signed by manufacturers:
   1. Cementitious materials.
   2. Admixtures.
   3. Curing compounds.
   4. Bonding agents.
   5. Adhesives.
   6. Vapor retarders.
   7. Semirigid joint filler.
   8. Joint-filler strips.
   9. Repair materials.

C. Material Test Reports: For the following from a qualified testing agency:
   1. Portland cement.
   2. Fly ash.
   3. Blended hydraulic cement.
   4. Aggregates.
   5. Admixtures.

D. Floor surface flatness and levelness measurements report indicating compliance with specified tolerances.

E. Research Reports:
   1. For concrete admixtures in accordance with ICC's Acceptance Criteria AC198.

F. Preconstruction Test Reports: For each mix design.

G. Field quality-control reports.

H. Minutes of preinstallation conference.

## 1.6 QUALITY ASSURANCE

A. Installer Qualifications: A qualified installer who employs Project personnel qualified as an ACI-certified Flatwork Technician and Finisher and a supervisor who is a certified ACI Flatwork Concrete Finisher/Technician or an ACI Concrete Flatwork Technician.
   1. Post-Installed Concrete Anchors Installers: ACI-certified Adhesive Anchor Installer.

B. Ready-Mixed Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C94 requirements for production facilities and equipment.
   1. Manufacturer certified in accordance with NRMCA's "Certification of Ready Mixed Concrete Production Facilities."

## 1.7 PRECONSTRUCTION TESTING

A. Preconstruction Testing Service: Engage a qualified testing agency to perform preconstruction testing on each concrete mixture.
   1. Include the following information in each test report:
      a. Admixture dosage rates.
      b. Slump.
      c. Air content.

d. Seven-day compressive strength.
e. 28-day compressive strength.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Comply with ASTM C94 and ACI 301.

1.9 FIELD CONDITIONS

A. Cold-Weather Placement: Comply with ACI 301 and ACI 306.1 and as follows.
1. Protect concrete Work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
2. When average high and low temperature is expected to fall below 40 degrees F for 3 successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
3. Do not use frozen materials or materials containing ice or snow.
4. Do not place concrete in contact with surfaces less than 35 degrees F, other than reinforcing steel.
5. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.

B. Hot-Weather Placement: Comply with ACI 301 and ACI 305.1, and as follows:
1. Maintain concrete temperature at time of discharge to not exceed 95 degrees F.
2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

**PART 2 - PRODUCTS**

2.1 CONCRETE, GENERAL

A. ACI Publications: Comply with ACI 301 unless modified by requirements in the Contract Documents.

2.2 CONCRETE MATERIALS

A. Cementitious Materials:
1. Portland Cement: ASTM C150, gray.
2. Fly Ash: ASTM C618, Class F.
3. Blended Hydraulic Cement: ASTM C595, Type IS, portland blast-furnace slag Type IL, portland-limestone cement.

B. Normal-Weight Aggregates: ASTM C33, Class 3S coarse aggregate or better, graded. Provide aggregates from a single source.
1. Alkali-Silica Reaction: Comply with one of the following:
a. Expansion Result of Aggregate: Not more than 0.04-percent at one-year when tested in accordance with ASTM C1293.
b. Expansion Results of Aggregate and Cementitious Materials in Combination: Not more than 0.10-percent at an age of 16 days when tested in accordance with ASTM C1567.

c. Alkali Content in Concrete: Not more than pounds per cubic yardfour for moderately reactive aggregate or pounds per cubic yardthree for highly reactive aggregate, when tested in accordance with ASTM C1293 and categorized in accordance with ASTM C1778, based on alkali content being calculated in accordance with ACI 301.

2. Maximum Coarse-Aggregate Size: One-and-three-fourth inch nominal.
3. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.

C. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures that do not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
1. Water-Reducing Admixture: ASTM C494, Type A.
2. High-Range, Water-Reducing Admixture: ASTM C494, Type F.

## 2.3 VAPOR RETARDERS

A. Sheet Vapor Retarder, Class A: ASTM E1745, Class A, except with maximum water-vapor permeance of not less than 20-mils--thick. Include manufacturer's recommended adhesive or pressure-sensitive tape.

## 2.4 CURING MATERIALS

A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 ouncees per square yard when dry.
C. Moisture-Retaining Cover: ASTM C171, polyethylene film burlap-polyethylene sheet.
1. Color:
a. Ambient Temperature Below 50 degrees F: Black.
b. Ambient Temperature between 50 degrees F and 85 degrees F: Any color.
c. Ambient Temperature Above 85 degrees F: White.
D. Water: Potable or complying with ASTM C1602.
E. Clear, Solvent-Borne, Membrane-Forming, Curing and Sealing Compound: ASTM C1315, Type 1, Class A.

## 2.5 RELATED MATERIALS

A. Expansion- and Isolation-Joint-Filler Strips: ASTM D1751, asphalt-saturated cellulosic fiber.
B. Semirigid Joint Filler: Two-component, semirigid, 100 percent solids, epoxy resin with a Type A shore durometer hardness of 80 in accordance with ASTM D2240.
C. Bonding Agent: ASTM C1059, Type II, nonredispersible, acrylic emulsion or styrene butadiene.
D. Epoxy Bonding Adhesive: ASTM C881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class suitable for application temperature and of grade and class to suit requirements, and as follows:
1. Types IV and V, load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.

## 2.6 CONCRETE MIXTURES, GENERAL

A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, in accordance with ACI 301.
   1. Use a qualified testing agency for preparing and reporting proposed mixture designs, based on laboratory trial mixtures.

B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:
   1. Fly Ash: 25 percent by mass.

C. Admixtures: Use admixtures in accordance with manufacturer's written instructions.
   1. Use water-reducing, high-range water-reducing, or plasticizing admixture in concrete, as required, for placement and workability.
   2. Use water-reducing admixture in pumped concreteand concrete with a w/cm below 0.50.

## 2.7 CONCRETE MIXTURES

A. Class A: Normal-weight concrete used for footings, grade beams, and tie beams.
   1. Exposure Class: ACI 318 F2.
   2. Minimum Compressive Strength: 4,000 psi at 28 days.
   3. Maximum w/cm: .50.
   4. Slump Limit: 4 inches, plus or minus 1 inch.

B. Class B: Normal-weight concrete used for foundation walls.
   1. Exposure Class: ACI 318.
   2. Minimum Compressive Strength: 4,000 psi at 28 days.
   3. Maximum w/cm: 0.50.
   4. Slump Limit: 6 inches, plus or minus 1 inch for concrete with verified slump of 3 inches plus or minus 1 inch before adding high-range water-reducing admixture or plasticizing admixture at Project Site.

C. Class C: Normal-weight concrete used for interior slabs-on-ground.
   1. Exposure Class: ACI 318 F0.
   2. Minimum Compressive Strength: 4,000 psi at 28 days.
   3. Maximum w/cm: 0.45.
   4. Minimum Cementitious Materials Content: Based on the requirements of ACI 301 for floors and relatee to nominal maximu aggregate sizes.
   5. Slump Limit: 6 inches, plus or minus 1 inch for concrete with verified slump of 3 inches plus or minus 1 inch before adding high-range water-reducing admixture or plasticizing admixture at Project site.
   6. Air Content:
      a. Do not use an air-entraining admixture or allow total air content to exceed 3 percent for concrete used in trowel-finished floors.

## 2.8 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete in accordance with ASTM C94 and ASTM C1116, and furnish batch ticket information.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Verification of Conditions:
   1. Before placing concrete, verify that installation of concrete forms, accessories, and reinforcement, and embedded items is complete and that required inspections have been performed.
   2. Do not proceed until unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

A. Provide reasonable auxiliary services to accommodate field testing and inspections, acceptable to testing agency, including the following:
   1. Daily access to the Work.
   2. Incidental labor and facilities necessary to facilitate tests and inspections.
   3. Secure space for storage, initial curing, and field curing of test samples, including source of water and continuous electrical power at Project site during site curing period for test samples.
   4. Security and protection for test samples and for testing and inspection equipment at Project site.

### 3.3 INSTALLATION OF EMBEDDED ITEMS

A. Place and secure anchorage devices and other embedded items required for adjoining Work that is attached to or supported by cast-in-place concrete.
   1. Use setting Drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
   2. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of ANSI/AISC 303.

### 3.4 INSTALLATION OF VAPOR RETARDER

A. Sheet Vapor Retarders: Place, protect, and repair sheet vapor retarder in accordance with ASTM E1643 and manufacturer's written instructions.
   1. Install vapor retarder with longest dimension parallel with direction of concrete pour.
   2. Face laps away from exposed direction of concrete pour.
   3. Lap vapor retarder Down footings and grade beams not less than 6 inches, sealing vapor retarder to concrete.
   4. Lap joints 6 inches and seal with manufacturer's recommended tape.
   5. Terminate vapor retarder at the top of floor slabs and grade beams sealing entire perimeter to floor slabs, grade beams, or foundation walls.
   6. Seal penetrations in accordance with vapor retarder manufacturer's instructions.
   7. Protect vapor retarder during placement of reinforcement and concrete.
      a. Repair damaged areas by patching with vapor retarder material, overlapping damages area by 6 inches on all sides, and sealing to vapor retarder.

## 3.5 JOINTS

A. Construct joints true to line, with faces perpendicular to surface plane of concrete.

B. Construction Joints: Coordinate with floor slab pattern and concrete placement sequence.

1. Install so strength and appearance of concrete are not impaired, at locations indicated on Drawings or as approved by Engineer.
2. Place joints perpendicular to main reinforcement.
   a. Cut reinforcement across construction joints unless otherwise indicated.
3. Locate joints for beams, slabs, joists, and girders at third points of spans. Offset joints in girders a minimum distance of twice the beam width from a beam-girder intersection.
4. Locate horizontal joints in walls and columns at underside of floors, slabs, beams, and girders and at the top of footings or floor slabs.
5. Space vertical joints in walls as indicated on Drawings. Unless otherwise indicated on Drawings, locate vertical joints beside piers integral with walls, near corners, and in concealed locations where possible.
6. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

C. Control Joints in Slabs-on-Ground: Form weakened-plane control joints, sectioning concrete into areas as indicated. Construct control joints for a depth equal to at least one-fourth of concrete thickness as follows:

1. Sawed Joints: Form control joints with "early entry" proccess equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch-wide joints into concrete when cutting action does not tear, abrade, or otherwise damage surface and before concrete develops random cracks.

D. Isolation Joints in Slabs-on-Ground: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

1. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface unless otherwise indicated on Drawings.
2. Terminate full-width joint-filler strips not less than 1/2-inch or more than 1-inch below finished concrete surface, where joint sealants are indicated.
3. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, lace or clip sections together.

E. Doweled Joints:

1. Install dowel plates and support assemblies at joints where indicated on Drawings.
2. Lubricate or asphalt coat one-half of dowel plates length to prevent concrete bonding to one side of joint.

F. Dowel Plates: Install dowel plates at joints where indicated on Drawings.

## 3.6 CONCRETE PLACEMENT

A. Before placing concrete, verify that installation of formwork, reinforcement, embedded items, and vapor retarder is complete and that required inspections are completed.

1. Immediately prior to concrete placement, inspect vapor retarder for damage and deficient installation, and repair defective areas.
2. Provide continuous inspection of vapor retarder during concrete placement and make necessary repairs to damaged areas as Work progresses.

B. Notify Engineer and testing and inspection agencies 24 hours prior to commencement of concrete placement.

C. Do not add water to concrete during delivery, at Project site, but not to exceed the amount indicated on the concrete delivery ticket.
   1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.

D. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301, but not to exceed the amount indicated on the concrete delivery ticket.
   1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.

E. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete is placed on concrete that has hardened enough to cause seams or planes of weakness.
   1. If a section cannot be placed continuously, provide construction joints as indicated.
   2. Deposit concrete to avoid segregation.
   3. Deposit concrete in horizontal layers of depth not to exceed formwork design pressures and in a manner to avoid inclined construction joints.
   4. Consolidate placed concrete with mechanical vibrating equipment in accordance with ACI 301.
      a. Do not use vibrators to transport concrete inside forms.
      b. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches into preceding layer.
      c. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity.
      d. At each insertion, limit duration of vibration to time necessary to consolidate concrete, and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.

F. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.
   1. Do not place concrete floors and slabs in a checkerboard sequence.
   2. Consolidate concrete during placement operations, so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
   3. Maintain reinforcement in position on chairs during concrete placement.
   4. Screed slab surfaces with a straightedge and strike off to correct elevations.
   5. Level concrete, cut high areas, and fill low areas.
   6. Slope surfaces uniformly to drains where required.
   7. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface.
   8. Do not further disturb slab surfaces before starting finishing operations.

## 3.7 FINISHING FORMED SURFACES

A. As-Cast Surface Finishes:
   1. ACI 301 Surface Finish SF-2.0: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams.
      a. Patch voids larger than 3/4-inch wide or 1/2-inch deep.
      b. Remove projections larger than 1/4-inch.
      c. Patch tie holes.
      d. Surface Tolerance: ACI 117 Class B.
      e. Locations: Apply to concrete surfaces exposed to public view.

B. Related Unformed Surfaces:

1. At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a color and texture matching adjacent formed surfaces.
2. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

## 3.8 FINISHING FLOORS AND SLABS

A. Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.

B. Float Finish:
1. When bleedwater sheen has disappeared and concrete surface has stiffened sufficiently to permit operation of specific float apparatus, consolidate concrete surface with power-driven floats or by hand floating if area is small or inaccessible to power-driven floats.
2. Repeat float passes and restraightening until surface is left with a uniform, smooth, granular texture and complies with ACI 117 tolerances for conventional concrete.
3. Apply float finish to surfaces to receive trowel finish.

C. Trowel Finish:
1. After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel.
2. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance.
3. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
4. Do not add water to concrete surface.
5. Do not apply hard-troweled finish to concrete, which has a total air content greater than 3 percent.
6. Apply a trowel finish to surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic tile.
7. Finish surfaces to the following tolerances, in accordance with ASTM E1155, for a randomly trafficked floor surface:
   a. Slabs on Ground:
      1) Finish and measure surface so gap at any point between concrete surface and an unleveled, freestanding, 10-feet long straightedge resting on two high spots and placed anywhere on the surface does not exceed 1/4-inch and also no more than 1/16-inch in 2 feet.

D. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and locations indicated on Drawings.
1. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route.
2. Coordinate required final finish with Engineer before application.

## 3.9 INSTALLATION OF MISCELLANEOUS CONCRETE ITEMS

A. Filling In:
1. Fill in holes and openings left in concrete structures after Work of other trades is in place unless otherwise indicated.
2. Mix, place, and cure concrete, as specified, to blend with in-place construction.
3. Provide other miscellaneous concrete filling indicated or required to complete the Work.

B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.

C. Equipment Bases and Foundations:
   1. Coordinate sizes and locations of concrete bases with actual equipment provided.
   2. Construct concrete bases 6 inches high unless otherwise indicated on Drawings, and extend base not less than 6 inches in each direction beyond the maximum dimensions of supported equipment unless otherwise indicated on Drawings, or unless required for seismic anchor support.
   3. Minimum Compressive Strength: 4,000 psi 3,000 psi at 28 days.
   4. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch centers around the full perimeter of concrete base.
   5. For supported equipment, install epoxy-coated anchor bolts that extend through concrete base and anchor into structural concrete substrate.
   6. Prior to pouring concrete, place and secure anchorage devices.
      a. Use setting Drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
      b. Cast anchor-bolt insert into bases.
      c. Install anchor bolts to elevations required for proper attachment to supported equipment.

## 3.10 CONCRETE CURING

A. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
   1. Comply with ACI 301 and ACI 306.1 for cold weather protection during curing.
   2. Comply with ACI 301 and ACI 305.1 for hot-weather protection during curing.

B. Curing Unformed Surfaces: Comply with ACI 308.1 as follows:
   1. Begin curing immediately after finishing concrete.
   2. Interior Concrete Floors:
      a. Floors to Receive Floor Coverings Specified in Other Sections: Contractor has option of the following:
         1) Absorptive Cover: As soon as concrete has sufficient set to permit application without marring concrete surface, install prewetted absorptive cover over entire area of floor.
            a) Lap edges and ends of absorptive cover not less than 12 inches.
            b) Maintain absorptive cover water saturated, and in place, for duration of curing period, but not less than 7 days.
         2) Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive.
            a) Immediately repair any holes or tears during curing period, using cover material and waterproof tape.
            b) Cure for not less than 7 days.
      b. Floors to Receive Curing Compound after moist cure:
         1) Apply uniformly in continuous operation by power spray or roller in accordance with manufacturer's written instructions.
         2) Recoat areas subjected to heavy rainfall within three hours after initial application.

3) Maintain continuity of coating, and repair damage during curing period.
4) Removal: After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound manufacturer unless manufacturer certifies curing compound does not interfere with bonding of floor covering used on Project.

3.11 TOLERANCES

A. Conform to ACI 117.

3.12 JOINT FILLING

A. Prepare, clean, and install joint filler in accordance with manufacturer's written instructions.
   1. Defer joint filling until concrete has aged at least one month.
   2. Do not fill joints until construction traffic has permanently ceased.
B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joints clean and dry.
C. Install semirigid joint filler full depth in saw-cut joints and at least 2 inches deep in formed joints.
D. Overfill joint, and trim joint filler flush with top of joint after hardening.

3.13 CONCRETE SURFACE REPAIRS

A. Defective Concrete:
   1. Repair and patch defective areas when approved by Engineer.
   2. Remove and replace concrete that cannot be repaired and patched to Engineer's approval.
B. Patching Mortar: Mix dry-pack patching mortar, consisting of one part portland cement to two and one-half parts fine aggregate passing a No. 16 sieve, using only enough water for handling and placing.
C. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.
   1. Immediately after form removal, cut out honeycombs, rock pockets, and voids more than 1/2-inch in any dimension to solid concrete.
      a. Limit cut depth to 3/4-inch.
      b. Make edges of cuts perpendicular to concrete surface.
      c. Clean, dampen with water, and brush-coat holes and voids with bonding agent.
      d. Fill and compact with patching mortar before bonding agent has dried.
      e. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.
   2. Repair defects on surfaces exposed to view by blending white portland cement and standard portland cement, so that, when dry, patching mortar matches surrounding color.
      a. Patch a test area at inconspicuous locations to verify mixture and color match before proceeding with patching.

b. Compact mortar in place and strike off slightly higher than surrounding surface.

3. Repair defects on concealed formed surfaces that will affect concrete's durability and structural performance as determined by Engineer.

D. Repairing Unformed Surfaces:

1. Test unformed surfaces, such as floors and slabs, for finish, and verify surface tolerances specified for each surface.
   a. Correct low and high areas.
   b. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.
2. Repair finished surfaces containing surface defects, including spalls, popouts, honeycombs, rock pockets, crazing, and cracks in excess of 0.01-inch wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
3. After concrete has cured at least 14 days, correct high areas by grinding.
4. Correct localized low areas during, or immediately after, completing surface-finishing operations by cutting out low areas and replacing with patching mortar.
   a. Finish repaired areas to blend into adjacent concrete.
5. Repair defective areas, except random cracks and single holes 1-inch or less in diameter, by cutting out and replacing with fresh concrete.
   a. Remove defective areas with clean, square cuts, and expose steel reinforcement with at least a 3/4-inch clearance all around.
   b. Dampen concrete surfaces in contact with patching concrete and apply bonding agent.
   c. Mix patching concrete of same materials and mixture as original concrete, except without coarse aggregate.
   d. Place, compact, and finish to blend with adjacent finished concrete.
   e. Cure in same manner as adjacent concrete.
6. Repair random cracks and single holes 1-inch or less in diameter with patching mortar.
   a. Groove top of cracks and cut out holes to sound concrete, and clean off dust, dirt, and loose particles.
   b. Dampen cleaned concrete surfaces and apply bonding agent.
   c. Place patching mortar before bonding agent has dried.
   d. Compact patching mortar and finish to match adjacent concrete.
   e. Keep patched area continuously moist for at least 72 hours.

E. Perform structural repairs of concrete, subject to Engineer's approval, using epoxy adhesive and patching mortar.

F. Repair materials and installation not specified above may be used, subject to Engineer's approval.

## 3.14 FIELD QUALITY CONTROL

A. Special Inspections: Owner will engage a special inspector to perform field tests and inspections and prepare testing and inspection reports.

B. Testing Agency: Owner will engage a qualified testing and inspecting agency to perform tests and inspections and to submit reports.

1. Testing agency shall be responsible for providing curing container for composite samples on Site and verifying that field-cured composite samples are cured in accordance with ASTM C31.

2. Testing agency shall immediately report to Engineer, Contractor, and concrete manufacturer any failure of Work to comply with Contract Documents.
3. Testing agency shall report results of tests and inspections, in writing, to Owner, Engineer, Contractor, and concrete manufacturer within 48 hours of inspections and tests.
    a. Test reports shall include reporting requirements of ASTM C31, ASTM C39, and ACI 301, including the following as applicable to each test and inspection:
        1) Project name.
        2) Name of testing agency.
        3) Names and certification numbers of field and laboratory technicians performing inspections and testing.
        4) Name of concrete manufacturer.
        5) Date and time of inspection, sampling, and field testing.
        6) Date and time of concrete placement.
        7) Location in Work of concrete represented by samples.
        8) Date and time sample was obtained.
        9) Truck and batch ticket numbers.
        10) Design compressive strength at 28 days.
        11) Concrete mixture designation, proportions, and materials.
        12) Field test results.
        13) Information on storage and curing of samples before testing, including curing method and maximum and minimum temperatures during initial curing period.
        14) Type of fracture and compressive break strengths at 7 days and 28 days.

C. Batch Tickets: For each load delivered, submit three copies of batch delivery ticket to testing agency, indicating quantity, mix identification, admixtures, design strength, aggregate size, design air content, design slump at time of batching, and amount of water that can be added at Project site.

D. Inspections:
1. Headed bolts and studs.
2. Verification of use of required design mixture.
3. Concrete placement, including conveying and depositing.
4. Curing procedures and maintenance of curing temperature.
5. Batch Plant Inspections: On a random basis, as determined by Engineer.

E. Concrete Tests: Testing of composite samples of fresh concrete obtained in accordance with ASTM C 172 shall be performed in accordance with the following requirements:
1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cubic yards, but less than 25 cubic yards, plus one set for each additional 50 cubic yards or fraction thereof.
    a. When frequency of testing provides fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
2. Slump: ASTM C143:
    a. One test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture.
    b. Perform additional tests when concrete consistency appears to change.
3. Concrete Temperature: ASTM C1064/C1064M:
    a. One test hourly when air temperature is 40 degrees F and below or 80 degrees F and above, and one test for each composite sample.

4. Compression Test Specimens: ASTM C31/C31M:
   a. Cast and laboratory cure two sets of four 6-inch by 12-inch or 4-inch by 8-inch cylinder specimens for each composite sample.
5. Compressive-Strength Tests: ASTM C39.
   a. Test one set of two laboratory-cured specimens at 7 days and one set of two specimens at 28 days.
   b. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.
6. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength, and no compressive-strength test value falls below specified compressive strength by more than 500 psi if specified compressive strength is 5,000 psi, or no compressive strength test value is less than 10 percent of specified compressive strength if specified compressive strength is greater than 5,000 psi.
7. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Engineer but will not be used as sole basis for approval or rejection of concrete.
8. Additional Tests:
   a. Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed byEngineer.
   b. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C42 or by other methods as directed by Engineer.
      1) Acceptance criteria for concrete strength shall be in accordance with ACI 301 section 1.6.6.3.
9. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional Work with specified requirements.
10. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.

F. Measure floor and slab flatness and levelness in accordance with ASTM E1155 within 24 hours of completion of floor finishing and promptly report test results to Engineer.

## 3.15 PROTECTION

A. Protect concrete surfaces as follows:
1. Protect from petroleum stains.
2. Diaper hydraulic equipment used over concrete surfaces.
3. Prohibit vehicles from interior concrete slabs.
4. Prohibit use of pipe-cutting machinery over concrete surfaces.
5. Prohibit placement of steel items on concrete surfaces.
6. Prohibit use of acids or acidic detergents over concrete surfaces.

END OF SECTION

# SECTION 05 40 00 - COLD-FORMED METAL FRAMING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Load-bearing fwall framing.
   2. Formed joist framing.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 05 50 00 "Metal Fabrications" for miscellaneous steel shapes, masonry shelf angles, and connections used with cold-formed metal framing.
   3. Section 09 22 16 "Non-Structural Metal Framing."

### 1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference Project site.

### 1.3 ACTION SUBMITTALS

A. Product Data: For the following:
   1. Cold-formed steel framing materials.
   2. Load-bearing wall framing.
   3. Verical deflection clips.
   4. Double deflection track.
   5. Floor joist framing.
   6. Post-installed anchors.
   7. Power-actuated anchors.
   8. Sill sealer gasket.

B. Shop Drawings:
   1. Indicate layout, spacings, sizes, thicknesses, and type of cold-formedsteel framing; fabrication; and and fastening and anchorage details, includingmechanical fasteners,.
   2. Indicate reinforcing channels, opening framing, supplemental framing, strapping, bracing, bridges, splices, accessories, connection details, and attachment to adjoining work..

C. Delegated Design Submittals: For cold-formed steel framing.

### 1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For testing agency.

B. Welding certificates.

C. Product Certificates: For each type of code-compliance certification for studs and tracks.

D. Product Test Reports: For each listed product, for tests performed by manufacturer and witnessed by a qualified testing agency.
   1. Steel sheet.
   2. Expansion anchors.

E. Power-actuated anchors.

1. Mechanical fasteners.
2. Vertical deflection clips.
3. Miscellaneous structural clips and accessories.

F. Research Reports:
1. For nonstandard cold-formed steel framing post-installed anchors and power-actuated fasteners from ICC-ES.
2. For sill sealer gasket/termite barrier, showing compliance with ICC-ES AC380.

1.5 QUALITY ASSURANCE

A. Testing Agency Qualifications: Qualified according to ASTM E329 for testing indicated.
B. Product Tests: Mill certificates or data from a qualified independent testing agency indicating steel sheet complies with requirements, including base-metal thickness, yield strength, tensile strength, total elongation, chemical requirements, and metallic-coating thickness.
C. Code-Compliance Certification of Studs and Tracks: Provide documentation that framing members are certified according to the product-certification program of the Certified Steel Stud Association or the Steel Stud Manufacturers Association.
D. Welding Qualifications: Qualify procedures and personnel according to the following:
1. AWS D1.1, "Structural Welding Code - Steel."
2. AWS D1.3, "Structural Welding Code- Sheet Steel."

1.6 DELIVERY, STORAGE, AND HANDLING

A. Protect and store cold-formed steel framing from corrosion, moisture staining, deformation, and other damage during delivery, storage, and handling as required in AISI S202,

**PART 2 - PRODUCTS**

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified Professional Engineer, as defined in Section 01 40 00 "Quality Requirements," to design cold-formed steel framing.
B. Structural Performance: Provide cold-fomed steel framing capable of withstanding design loads within limits and under conditions indicated.
1. Design Loads: As indicated on Drawings.
2. Deflection Limits: Design framing systems to withstand design loads without deflections greater than the following:
a. Exterior Load-Bearing Wall Framing: Horizontal deflection of 1/360 of the wall height.
b. Interior Load-Bearing Wall Framing: Horizontal defletion of 1/360 of the wall height under a horizontal load of 5 pound force per square feet.
c. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/240 for total loads of the span.
3. Design framing sysems to provide for movement of framing members loccated outside the insulated building envelope without damage or over-stressing, sheathing failure, connection failure, undue strain on fasteners and anchors, or other detrimental effects when subject to a maximum ambient temperature change of 120 degrees F.

4. Cold-Formed Steel Framing Standards: Unless more stringent requirements are indicated, framing complies with AISI S100 and ASTM C955.

## 2.2 COLD-FORMED STEEL FRAMING MATERIALS

A. Framing Members, General: Comply with ASTM C955 for conditions indicated.
B. Steel Sheet: ASTM A1003, Structural Grade, Type H, metallic coated, of grade and coating designation as follows:
   1. Grade: As required by structural performance.
   2. Coating: G60.
C. Sheet Sheet for Vertical Deflection Clips: ATM A653, structural steel, zinc coated, of grade and coating as follows:
   1. Grade: As required by structural performance.
   2. Coating: G60.

## 2.3 LOAD-BEARING WALL FRAMING

A. Steel Studs: Manufacturer's standard C-shaped steel studs, off web depths indicated, punched, with stiffened flanges, and as follows:
   1. Minimum Base-Metal Thickness: 0.0538-inch.
   2. Flange Width: 1-5/8 inches.
B. Steel Track: Manufacturer's standard U-shaped steel tracck, of web depths indicated, unpunched, with straight flanges, and as follows:
   1. Minimum Base-Metal Thickness: Matching steel studs.
   2. Flange Width: 1-1/4 inches.
C. Steel Box or Back-to-Back Headers: Manufacturer's standard C-shapes used to form header beams, of web depths indicated, unpunched, with stiffened flanges, and as follows:
   1. Minimum Base-Metal Thickness: 0.0538-inch.
   2. Flange Width: 1-5/8 inches.
D. Single Deflection Track: Manufacturer's single, deep-leg, U-shaped steel track; unpunched, with unstiffened flanges, of web depth to contain studs while allowing free vertical movement, with flanges designed to support horizontal loads and transfer them to the primary structure, and as follows.
   1. Minimum Base-Metal Thickness: 0.0538-inch.
   2. Flange Width: 1 inch plus the design gap.
E. Double Deflection Tracks: Manufacturer's double, deep leg, U-shaped steel tracks, consisting of nested inner and outer track, unpunced, with unstiffened flanges.
   1. Out Track: Of web depth to allow free vertical movement of inner track, with flanges designedto support horizonal loads and transfer them to the primary structure, and as follows:
      a. Minimum Base-Metal Thickness: 0.0538-inch.
      b. Flange Width: 1 inch.
   2. Inner Track: Of web depth indicated and as follows:
      a. Minimum Base-Metal Thickness: 0.0538-inch.
      b. Flange Width: Dimension equal to sum of outer deflection track flange width plus 1 inch.

## 2.4 INTERIOR NON-LOAD-BEARING WALL FRAMING

A. Steel Studes: manufacturer's standard C-shaped steel studs, of web depths indicated, punchh, with stiffened flanges, and as follows:
   1. Minimum Base-Metal Thickness: 0,0538-inch.
   2. Flange Width: 1-5/8 inches.

B. Steel Track: Manufacturer's standard U-shaped steel track, of web depths indicated, unpunched, with unstiffened flanges, and as follows:
   1. Minimum Base-Metal Thickness: Matching steel studs.
   2. Flange Width: 1-1/4 inches.

C. Single Deflection Track: Manufacturer's single, deep-leg, U-shaped steel track, unpunched, with unstiffened flanges, of web depth to contain studs while allowing free vertical movement, with flanges designed to support horizontal loads and transfer them to primary structure, and as follows:
   1. Minimum Base-Metal Thickness: 0.0538-inch.
   2. Flange Width: 1 inch plus the design gap.

D. Double Deflection Track: Manufacturer's double, deep-leg, U-shaped steel tracks, consisting of nesed inner and outher tracks; unpunchhhed, with unstiffened flanges.
   1. Out Track: Of web depth to allow free vertical movement of inner track, with flanges designedto support horizonal loads and transfer them to the primary structure, and as follows:
      a. Minimum Base-Metal Thickness: 0.0538-inch.
      b. Flange Width: 1 inch plus the design gap.
   2. Inner Track: Of web depth indicated and as follows:
      a. Minimum Base-Metal Thickness: 0.0538-inch.
      b. Flange Width: Dimension equal to sum of outer deflection track flange width plus 1 inch.

## 2.5 FLOOR JOIST FRAMING

A. Steel Joists: Manufacturer's standard C-shaped steel joists, of web depth indicated, unpunched, wih stiffened flanges, and as follows:
   1. Minimum Base-Metal Thickness: 0.0677-inch.
   2. Flange Width: 2 inches minimum

B. Steel Joist Track: Manufacturer's standard U-shaped steel joist track, of web depths indicated, unpunches, wth unstiffened flanges, and as follows:
      a. Maching Matching steel joists.
      b. Flange Width: As required.

## 2.6 FRAMING ACCESSORIES

A. Fabricate steel-framing accessories from ASTM A1003, Structural Grade, Type H, metallic-coated steel sheet, of same grade, and coating designation used for framing members.

B. Provide accessories of manufacturer's standard thickness and configuration, unless otherwise indicated, as follows:
   1. Supplementary framing.
   2. Bracing, bridging, and solid blocking.
   3. Web stiffeners.
   4. Anchor clips.

5. End clips.
6. Foundaton clips
7. Gusset plates.
8. Stud kickers and knee braces.
9. Joist hangers and end closures.
10. Hole-reinforcing plates.
11. Backer plates.

## 2.7 ANCHORS, CLIPS, AND FASTENERS

A. Steel Shapes and Clip: ASTM A36, zinc coated by hot-dip process according to ASTM A123.

B. Anchor Bolts: ASTM F1554, Grade 36, threaded carbon-steel hex-headed bolts, carbon-steel nuts, and flat, hardened-steel washers: zinc coated by hot-dip proccess according to ASTM 153, Class C.

C. Post-Installed Anchors: Fastener systems with bolts of same basic metal as fastened metal, if visible, unless otherwise indicted; with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC01, ICC-ES AC193, ICC-ES AC58, OR ICC-ES AC308 as appropriate for the substrate.
   1. Uses: Securing cold-formed steel framing to structure.
   2. Type: Adhesive anchor.
   3. Material for Interior Locations: Carbon-steel components zinc plated to comply with ASTM B633 OR ASTM F1941, Class Fe/Zn 5, unless otherwise indicated.

D. Power-Actuated Anchors: Fastener systems with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

E. Mechanical Fasteners: ASTM C1513, corrosion-resistant-coated, self-drilling, self-tapping, steel drill screwes.
   1. Head Type: Low-profile head beneath sheathing, manufacturer's standard elsewhere.

F. Welding Electrodes: Comply with AWS standards.

## 2.8 MISCELLANEOUS MATERIALS

A. Galvanizing Repair Paint; ATM A780, MIL-P-21035B, OR SSPC-Paint 20.

B. Nonmetallic, Nonshrink Grout: Factory-packaged, nonmetallic, noncorrosive, nonstaining grout, complying with ASTM C1107, and with a fluid consisteny and 30-minute working time.

C. Shims: Load-bearing, high-density, multimonomer, nonleaching plastic; or cold-formed steel of same grade and metallic coating as framing members supported by shims.

D. Sill Sealer Gasket/Termite Barrier: Minimum 68-mil nominal thickness, self-adhering sheet consisting of 64 mils of rubberized asphalt laminated on one side to a 4-mil-thick, polyethylene-film reinforcement, and with release liner on adhesive side.
   1. Physical Properites:
      a. Peel Adhesion: 17.0 pounds per inch of width when tested in accordance with ASTM D412.
      b. Low-Temperature Flexibility: Pass at minus 25 degrees F when tested in accordance with ASTM D146.
      c. Water Vapor Permeance: 0.05 permeance maximum when tested in accordance with ASTM E96, Method B.


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d. Resistance to Termite Penetration: Comply with ICC-ES AC380.

2.9 FABRICATION

A. Fabricate cold-formed steel framing and accessories plumb, square, and true to line, and with connections securely fastened, according to referenced AISI's specifications and standards, manufacturer's written instructions, and requirements in this Section,
   1. Fabricate framing assemblies using jigs or templates.
   2. Cut framing members by sawing or shearing; do not torch out.
   3. Fasten cold-formed steel framing members by welding, screw fastening, clinch fastening, pneumatic pin fastening, or riveting as standard with fabricator. Wire tying of framing members is not permitted.
      a. Comply with AW D1.3 requirements and procedures for welding, appearance and qualty of welds, and methods used in correcting welding work.
      b. Locate mechanical fasteners and install according to Shop Drawings, with screws penetrating jointed members by no fewer than three exposed screw threads.
   4. Fasten other materials to cold-formed steel framing by welding, bolting, pneumatic pin fastening, or screw fastening according to Shop Drawings.

B. Reinforce, stiffen, and brace framing assemblies to withstand handling, delivery, and erection stresses. Lift fabricated assemblies by means that prevent damage or permanent distortion.

C. Tolerances: Fabricte assemblies level ,plumb, and true to line at a maximum allowable variation of 1/8-inch in 10 feet and as follows:
   1. Spacing: Space individual framing members no more than plus or minus 1/8-inch from plan location. Cumulative errors are not to exceed minimum fastening requiremens of sheathing or other finishing materials.
   2. Squareness: Fabricate each cold-formed steel framing assembly to a maximum out-of-square tolerance of 1/8-inch.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine substrates, areas, conditions and butting structural framing for compliance with requirements for installation tolerances and other conditions affecting performance of Work.

B. Proceed with installation onlty after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Install load-bearing shims or grout between the underside of load-bearing wall bottom track and the top of foundation wall or slab at locations with a gap larger than 1/4-inch to ensure a uniform bearing surface on supporting concrete or masonry construction.

B. Install sill sealer gasket/termite barrier in accordance with manufacturer's written instructions at the underside of wall bottom track or rim track and at the top of foundation wall or slab at stud or joist locations.

## 3.3 INSTALLATION, GENERAL

A. Cold-formed steel framing may be shop or field fabricated for installation or it may be field assembled.

B. Install cold-formed steel framing according to AISI200, AISI S202, and manufacturer's written instructions unless more stringent requirements are indicated.

C. Install shop- or field-fabricted, cold-formed framing and securely anchor to supporting structure.
   1. Screw bolt, or weld wall panels at horizontal and vertical junctures to produce flush, even, true-to-line joints with maximum variation in plane and true position between fabricated panels not exceeding 1/16-inch.

D. Install cold-fired steel framing and accessories plumb, square, and true-to-line, and with connections securely fastened.
   1. Cut framing members by sawing or shearing; do not torch cut.
   2. Fasten, cold-formed steel framing members by welding, screw fastening, clinch fastening, or riveting. Wire tying of framing members is not permitted.
      a. Comply with AWS D1.3 requirements and procedures for welding, appearance and quality of welds, and methods used in correcting welding Work.
      b. Locate mechanical fastener, install according to Shop Drawings, and comply with requirements for spacing, edge distances, and screw penetration.

E. Install temporary bracing and supports to secure framing and support loads equal to those for which structure was designed. Maintain braces and supports in place, undisturbed, until entire integrated supporting structure has been completed and permanent connections to framing are secured.

F. Install insulation specified in Section 07 21 00 "Thermal Insulation," in framing-assembly members, such as headers, sills, boxed joists, and multiple studs at openings, that are inaccessible on completion of framing work

G. Fasten hole-reinforcing plate over web penetrations that exceed size of manufacturer's approved or standard punched openings.

## 3.4 INSTALLATION OF LOAD-BEARING WALL FRAMING

A. Install continuous top and bottom tracks sized to match studs. Align tracks accurately and securely anchor at corners and ends and at spacings as follows:
   1. Anchor Spacing: As shown on Shop Drawings.

B. Squarely seat studs against top and bottom tracks with gap not exceeding 1/8-inch between the end of wall-framing member and the web of track.
   1. Fasten both flanges of studs to top and bottom tracks.
   2. Space studs as follows:
      a. Stud Spacing: 16 inches.

C. Set studs plumb, except as needed for diagonal bracing or required for nonplumb walls or warped surfaces and similar configurations.

D. Align studs vertically where floor framing interrupts wall-framing continuity. Where studs cannot be aligned, continuously reinforce track to transfer loads.

E. Align floor and roof framing over studs according to AISI S200, Section C1. Where framing cannot be aligned, continuously reinforce track to transfer loads.

F. Anchor studs abutting structural columns or walls, including masonry walls, to supporting structure.


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G. Install headers over wall openings wider than stud spacing. Locate headers above openings. Fabricate headers of compound shapes indicated or required to transfer load to supporting studs, complete with clip-angle connectors, web stiffeners, or gusset plates.
   1. Frame wall openings with not less than a double stud at each jamb of frame. Fasten jamb members together to uniformly distribute loads.
   2. Install tracks and jack studs above and below wall openings. Anchor tracks to jamb studs with clip angles or by welding, and space jack studs same as full-height wall studs.

H. Install supplementary framing, blocking, and bracing in stud framing indicted to support fixtures, equipment, services, casework, heavy trim, furnishings, and similar work requiring attachment to framing.
   1. If type of supplementary support is not indicated comply with stud manufacturer's written recommendations and industry standards in each case considering weight or load resulting from item supported.

I. Install horizontal bridging in stud system, spaced vertically 48 inches. Fasten at each stud intersection.
   1. Channel Bridging: Cold-rolled steel channel, welded or mechanically fastened to webs of punched studs with a minimum of two screws into each flange of the clip angle for framing members up to 6 inches deep.
   2. Strap Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and stud-track solid blocking of width and thickness to match studs. Fasten flat straps to stud flanges and secure solid blocking to stud webs or flanges.
   3. Bar Bridging: Proprietary bridging bars installed according to manufacturer's written instructions.

J. Install miscellaneous framing and connections, including supplementary framing, web stiffeners, clip angles, continuous angles, anchors, and fasteners to provide a complete and stable wall-framing system.

## 3.5 INSTALLATION OF EXTERIOR NON-LOAD BEARING WALL FRAMING

A. Install continuous tracks sized to match studs. Align tracks accurately and securely anchor to supporting structure.

B. Fasten both flanges of studs to top and bottom tracks unless otherwise indicated. Space studs as follows:
   1. Stud Spacing: 16 inches.

C. Set studs plumb except as needed for diagonal bracing or required for non-plumb walls or warped surfaces and similar requirements.

D. Isolate non-load-bearing steel framing from building structure to prevent transfer to vertical loads while providing lateral support.
   1. Install single deep-leg deflection tracks and anchor to building structure.
   2. Install double deep-leg deflection tracks and anchor out track to building structure.

E. Install horizontal bridging in wall studs, spaced vertically in rows indicated on Shop Drawings but no more than 48 inches apart. Fasten at each stud intersection.
   1. Channel Bridging: Cold-rolled steel channel, welded or mechanically fastened, to webs of punched studs.
   2. Strap Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and stud-track solid blocking of width and thickness to match studs. Fasten flat straps to stud flanges and secure solid blocking to stud webs or flanges.
   3. Bar Bridging: Proprietary bridging bars installed according to manufacturer's written instructions.

F. Top Bridging for Single Deflection Track: Install row of horizontal bridging within 12 inches of single deflection track. Install a combination of bridging and stud or stud-track solid blocking of width and thickness matching studs, secured to stud webs or flanges.
   1. Install solid bocking at 96-inch centers.
G. Install miscellaneous framing and connections, including stud kickers, web stiffeners, clip angles, continuous angles, anchors, and fasteners to provide a complete and stable wall-framing system.

## 3.6 INSTALLATION OF INTERIOR NON-LOAD BEARING WALL FRAMING

A. Install continuous tracks sized to match studs. Align tracks accurately and securely anchor to supporting structure.
B. Fasten both flanges of studs to top and bottom tracks unless otherwise indicated. Space studs as follows:
   1. Stud Spacing: 16 inches.
C. Set studs plumb, except as needed for diagonal bracing or required for non-plumb walls or warped surfaces and similar requirements.
D. Isolate non-load bearing steel framing from building structure to prevent transfer of vertical loads while providing lateral support.
   1. Install single deep-leg deflection tracks and anchor to building structure.
   2. Install double deep-leg deflection tracks and anchor outer track to buiding structure.
E. Install horizontal bridging in wall studs, spaced vertically in rows indicaed on Shop Drawings but not more than 48 inches apart. Fasten at each stud intersection.
   1. Channel Bridging: Cold-rolled steel channel, welded or mechanically fastened, to webs of punched studs.
   2. Strap Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and stud-track solid blocking of width and thickness to match studs. Fasten flat straps to stud flanges and secure solid blocking to stud webs or flanges.
   3. Bar Bridging: Proprietary bridging bars installed according to manufacturer's written instructions.
F. Top Bridging for Single Deflection Track: Install row of horizontal bridging within 12 inches of single deflection track. Install a combination of bridging and stud or stud-track solid blocking of width and thickness matching studs, secured to stud webs or flanges.
   1. Install solid blocking at 96-inch centers.
G. Install miscellaneous framing and connections, including stud kickers, web stiffeners, clip angles, continuous angles, anchors, and fasteners to provide a complete and stable wall-framing system.

## 3.7 INSTALLATION OF JOIST FRAMING

A. Install continuous tracks sized to match studs. Align tracks accurately and securely anchor to supporting structure.
B. Fasten both flanges of studs to top and bottom tracks unless otherwise indicated. Space studs as follows:
   1. Stud Spacing: 16 inches.
C. Set studs plumb except as needed for diagonal bracing or required for non-plumb walls or warped surfaces and similar requirements.
D. Isolate non-load-bearing steel framing from building structure to prevent transfer to vertical loads while providing lateral support.
   1. Install single deep-leg deflection tracks and anchor to building structure.

2. Install double deep-leg deflection tracks and anchor out track to building structure.

E. Install horizontal bridging in wall studs, spaced vertically in rows indicated on Shop Drawings but no more than 48 inches apart. Fasten at each stud intersection.
   1. Channel Bridging: Cold-rolled steel channel, welded or mechanically fastened, to webs of punched studs.
   2. Strap Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and stud-track solid blocking of width and thickness to match studs. Fasten flat straps to stud flanges and secure solid blocking to stud webs or flanges.
   3. Bar Bridging: Proprietary bridging bars installed according to manufacturer's written instructions.

F. Top Bridging for Single Deflection Track: Install row of horizontal bridging within 12 inches of single deflection track. Install a combination of bridging and stud or stud-track solid blocking of width and thickness matching studs, secured to stud webs or flanges.
   1. Install solid bocking at 96-inch centers.

G. Install miscellaneous framing and connections, including stud kickers, web stiffeners, clip angles, continuous angles, anchors, and fasteners to provide a complete and stable wall-framing system.

## 3.8 INSTALLATION OF INTERIOR NON-LOAD BEARING WALL FRAMING

A. Install perimeter joist track sized to match joists. Align and securely anchor or fasten track to supporting structure at corners, ends, and spacing indicated on Shop Drawings.

B. Install joists bearing on supporting frame, level, straight, and plumb; adjust to final position, brace, and reinforce. Fasten joists to both flanges of joist track.
   1. Install joists over supporting frame with a minimm end bearing of 1-1/2 inches.
   2. reinforce ends and bearing oints of joists with web stiffeners, end clips, joist hangers, steel clip angles, or steel-stud sections.

C. Space joists not more than 2 inches from abutting walls and as follows:
   1. Joist Spacing: 24 inches.

D. Frame openings with built-up joist headers, consisting of jost and joist track or anothr combinaton of connected joists if indicated.

E. Install joist reinforcement at interior supports with single, short length of joist secction located directly over interior support, with lapped joists of equal length to joist reinforcement.
   1. Install web stiffeners to transfer axial loads of walls above.

F. Install bridging intervals indicaed on Shop Drawings.. Fasten at each joist intersection as follows:
   1. Joist-Track Bridging: Joist-track solid bocking of width and thickness indicated, secured to joist webs.
   2. Combination Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and joist-track solid blocking of width and thickness indicated. Fasten flat straps to bottom flange and secure solid blocking to joist webs.

G. Secure joists to load-bearing interior walls to prevent lateral movement of bottom flange.

H. Install miscellaneous joist framing and connections, including web stiffeners, closure pieces, clip angles, continuous angles, hold-down angles, anchors, and fasteners to provide a complete and stable joist-framing assembly.

3.9 INSTALLATION TOLERANCES

A. Install cold-formed steel framing level plumb and true-to-line to a maximum allowable tolerance variation of 1/8-inch in 10 feet and as follows:
   1. Space individual framing members no more than plus or minus 1/8-inch from plan location. Cumulative errors are not to exceed minimum fastening requirements of sheathing or other finishing materials.

3.10 REPAIR

A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on fabricated and installed cold-formed steel framing with galvanized repair paint according to ASTM A780 and manufacturer's written instructions.

3.11 FIELD QUALITY CONTROL

A. Testing: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspectons and prpare test reports.
B. Field and shop welds will be subject to testing and inspecting.
C. Testing ageny will report test results promptly and in writing to Contractor and Architect.
D. Cold-formed steel framing will be considered defective if it does not pass tests and inspections.
E. Additional testing and inspecting, at Contractor's expense, will be performed tto determine compliance of replaced or additional work with specified requirements.

3.12 PROTECTION

A. Provide final protection and maintain conditions, in a manner acceptale to manufacturer and Installer, that ensure that cold-formed steel framing is without damage or deterioration at time of Substantial Completion.

END OF SECTION

## SECTION 06 16 13 – INSULATING SHEATHING (ZIP SYSTEM R SHEATHING)

### PART 1 - GENERAL

1.1 SUMMARY

A. Section includes insulating wall sheathing with integral water-resistive barrier and air barrier.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. American Society of Mechanical Engineers (ASME): www.asme.org.
   1. ASME B18.6.1 - Wood Screws (Inch Series).
B. ASTM International (ASTM): www.astm.org.
   1. ASTM A153 - Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
   2. ASTM C1289 - Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
   3. ASTM D779 - Test Method for Water Resistance of Paper, Paperboard, and Other Sheet Materials by the Dry Indicator Method.
   4. ASTM D1621 - Test Method for Compressive Properties Of Rigid Cellular Plastics.
   5. ASTM D2247 - Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.
   6. ASTM E96 - Test Methods for Water Vapor Transmission of Materials.
   7. ASTM E331 - Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
   8. ASTM E2357 - Test Method for Determining Air Leakage of Air Barrier Assemblies.
   9. ASTM F1667 - Specification for Driven Fasteners: Nails, Spikes, and Staples.
   10. ASTM G154 - Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials.
C. US Department of Commerce (DOC): http://gsi.nist.gov/global/index.cfm/L1-5/l2-44/A-355.
   1. DOC PS 2 - Performance Standard for Wood-Based Structural Panels.
D. International Code Council (ICC): www.iccsafe.org.
   1. ICC IBC - International Building Code.
   2. ICC IRC - International Residential Code for One and Two-Family Dwellings.
E. ICC Evaluation Service, Inc. (ICC-ES): www.icc-es.org.
   1. ICC-ES AC12 - Acceptance Criteria For Foam Plastic Insulation.
   2. ICC-ES AC38 - Acceptance Criteria for Water-Resistive Barriers.
   3. ICC-ES AC116 - Acceptance Criteria for Nails and Spikes.
   4. ICC-ES AC148 - Acceptance Criteria For Flexible Flashing Materials.
   5. ICC-ES AC201 - Acceptance Criteria for Staples.
   6. ICC-ES AC269 - Acceptance Criteria for Racking Shear Evaluation of Proprietary Sheathing Materials attached to Light-Frame Wall Construction or Code-Complying Sheathing Attached to Light-Framed Walls with Proprietary Fasteners.

7. ICC-ES AC310 - Acceptance Criteria for Water-Resistive Membranes Factory-bonded to Wood-based Structural Sheathing, Used as Water-Resistive Barriers.
8. ICC-ES ESR-1539 - Power Driven Staples and Nails for Use in Engineered and Non-Engineered Connections.
9. ICC-ES NER-272 - Power Driven Staples and Nails for Use in All Types of Building Construction.

F. Sustainable Forestry Initiative (SFI): www.sfiprogram.org/
1. SFI 2010 - 2014 Standard.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of sheathing product specified.

1.4 INFORMATIONAL SUBMITTALS

A. Evaluation Reports: From ICC-ES, for wood sheathing and seam tape.
B. Product Certifications: From manufacturer, indicating that sheathing products comply with ICC-ES AC269 and ICC-ES AC310.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Provide wood products from manufacturer certified by SFI, FSC, or comparable sustainable forestry program acceptable to Engineer.
B. Provide wall sheathing products meeting requirements for water-resistive barrier in accordance with ICC-ES AC310.
C. Provide wall sheathing products meeting requirements of ICC-ES AC269.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Comply with manufacturer's written instructions for protection of sheathing products from weather prior to installation.

1.7 WARRANTY

A. Special Manufacturer's Warranty: Manufacturer's standard form in which sheathing manufacturer agrees to repair or replace sheathing products that demonstrate deterioration or failure under normal use due to manufacturing defects within warranty period specified, when installed according to manufacturer's instructions.
1. Warranty Period for Sheathing Products: Thirty years following date of Substantial Completion.
2. Warranty Conditions: Special warranties exclude deterioration or failure due to structural movement resulting in stresses on sheathing products exceeding manufacturer's written specifications, or due to air or moisture infiltration resulting from cladding failure or mechanical damage.

## PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Product: Provide sheathing products manufactured by Huber Engineered Woods LLC, Charlotte NC; Phone: 800.933.9220; Website: www.zipsystem.com.

2.2 PERFORMANCE REQUIREMENTS

A. Air-Barrier Assembly Air Leakage: Less than 0.04 cubic feet per minute per square foot at 1.57 pound force per square foot, per ASTM E2375.
B. Water-Vapor Permeance, Facer: Minimum 12 perms, ASTM E96.
C. Weather Exposure: Manufacturer warranty applies for maximum allowable exposure period of 180 days.

2.3 MATERIALS

A. Oriented Strand Board: DOC PS 2, made with binder containing no added urea formaldehyde.
B. Rigid Foam Plastic Insulating Board: Rigid polyisocyanurate foam core complying with ASTM C1289 Type II, Class 2, and ICC-ES AC12, with coated glass fiber facers on both sides, with the following characteristics:
   1. Nominal Density: Two pounds per cubic foot.
   2. Compressive Strength, ASTM D1621: Not less than 20 psi.
   3. Vapor Permeance, ASTM E96: Less than 1.0 perm.
   4. Edge Configuration: Square finished.

2.4 COMPOSITE INSULATING WALL SHEATHING

A. Composite Insulating Wall Sheathing: Oriented-strand-board Exposure one sheathing 7/16-inch thick, with factory-laminated water-resistive barrier exterior facer, and with rigid foam plastic insulating board laminated to interior face.
   1. Basis-of-Design Product: Provide Huber Engineered Woods LLC; ZIP System R Sheathing.
   2. Span Rating and Performance Category of Sheathing Layer: Not less than 24/16; 7/16 Performance Category.
   3. Thickness: One inch.
   4. Thermal Resistivity (R Value): 6.6 degrees F by h by square foot/BTU by inches at 75 degrees F.
   5. Edge Profile: Square edge.
   6. Exterior Facer: Medium-density, phenolic-impregnated polymer-modified sheet material meeting requirements for ASTM D779 Grade D weather-resistive barrier in accordance with ICC AC38 and AC310, with fastener spacing symbols on exterior facer for 16-inch and 24-inch on center spacing, with the following characteristics
      a. Water Resistance of Coatings, ASTM D2247: Pass 14 day exposure test.
      b. Moisture Vapor Transmission, ASTM E96: Not less than 12 perms.
      c. Water Penetration, ASTM E331: Pass at 2.86 pound force per square foot.
      d. Wind Driven Rain, TAS-100: Pass.
      e. Accelerated Weathering, ASTM G154: Pass.


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2.5 FASTENERS

A. Fasteners, General: Size and type complying with manufacturer's written instructions for Project conditions and requirements of authorities having jurisdiction.
   1. Corrosion Resistance: Hot-dip zinc coating, ASTM A153.
B. Nails, Brads, and Staples: ICC AC116 and ICC AC201.

C. Power-Driven Fasteners: ICC-ES-1539 or NER-272.
D. Wood Screws: ASME B18.6.1.

2.6 SHEATHING JOINT-AND-PENETRATION TREATMENT MATERIAL

A. Self-Adhering Seam and Flashing Tape: Pressure-sensitive, self-adhering, cold-applied, seam tape consisting of polyolefin film with acrylic adhesive, meeting ICC AC148.
   1. Basis-of-Design Product: Provide Huber Engineered Woods; ZIP System Tape.
   2. Thickness: 0.012-inch

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine framing spacing and alignment to determine if Work is ready to receive sheathing. Proceed with sheathing Work once conditions meet requirements.

3.2 SHEATHING INSTALLATION

A. Install sheathing panels in accordance with manufacturer's written instructions, requirements of applicable Evaluation Reports, and requirements of authorities having jurisdiction.
B. Air and Moisture Barrier: Coordinate sheathing installation with flashing and joint sealant installation and with adjacent building air and moisture barrier components to provide complete, continuous air- and moisture- barrier.
C. Do not bridge expansion joints; allow joint spacing equal to spacing of structural supports.
D. Install panels with laminated facer to exterior. Stagger end joints of adjacent panel runs.
   1. ICC-ES ESR-1539 OR ICC-NES NER-272 for power-drive fasteners.
   2. IBC: Table 2304.9.1 Fastening Schedule.
E. Apply seam tape at all panel seams, penetrations, and facer defects or cracks to form continuous weathertight surface. Apply tape according to manufacturer's written instructions and requirements of ICC-ES applicable to tape application.

END OF SECTION

# SECTION 06 41 16 - PLASTIC-LAMINATE-CLAD ARCHITECTURAL CABINETS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Plastic-laminate-clad architectural cabinets.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 08 71 00 "Door Hardware."
   3. Section 08 80 00 "Glazing."

### 1.2 COORDINATION

A. Hardware Coordination: Distribute copies of approved hardware schedule specified in Section 08 71 00 "Door Hardware" to manufacturer of architectural cabinets; coordinate Shop Drawings and fabrication with hardware requirements.

### 1.3 ACTION SUBMITTALS

A. Shop Drawings:
   1. Include Plans, elevations, Sections, and attachment details.
   2. Show locations and sizes of furring, blocking, and hanging strips if used, including concealed blocking and reinforcement specified in other Sections.
   3. Show locations and sizes of cutouts and holes for items installed in plastic-laminate architectural cabinets.

B. Samples for Verification: For the following:
   1. Plastic Laminates: In largest size available by manufacturer for each type, color, pattern, and surface finish required.

### 1.4 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver cabinets until painting and similar finish operations that might damage architectural cabinets have been completed in installation areas. Store cabinets in installation areas or in areas where environmental conditions comply with requirements specified in "Field Conditions" Article.

1.5 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install cabinets until building is enclosed, wet-work is complete, and HVAC system is operating and maintaining temperature between 60 and 90 degrees F and relative humidity between 25 and 55 percent during the remainder of the construction period.

B. Field Measurements: Where cabinets are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1. Locate concealed framing, blocking, and reinforcements that support cabinets by field measurements before being enclosed/concealed by construction, and indicate measurements on Shop Drawings.

## PART 2 - PRODUCTS

2.1 PLASTIC-LAMINATE-CLAD ARCHITECTURAL CABINETS

A. Quality Standard: Unless otherwise indicated, comply with the Engineerural Woodwork Standards for grades of cabinets indicated for construction, finishes, installation, and other requirements.

2.2 CABINET HARDWARE AND ACCESSORIES

A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets except for items specified in Section 08 71 00 "Door Hardware."

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Accuride International.
   b. Blum, Julius & Co., Inc.
   c. CompX International, Inc.
   d. Grass America Inc.
   e. Hettich America L.P.
   f. Knape & Vogt Manufacturing Company.

B. Frameless Concealed Hinges (European Type): ANSI/BHMA A156.9, B01602, 100 degrees of opening, self-closing.

C. Back-Mounted Pulls: ANSI/BHMA A156.9, B02011.

D. Wire Pulls: Back mounted, solid metal, 5 inches long, 2-1/2 inches deep, and 5/16-inch in diameter.

E. Adjustable Shelf Standards and Supports: ANSI/BHMA A156.9, B04071; with shelf rests, B04081.

F. Shelf Rests: ANSI/BHMA A156.9, B04013; plastic two-pin plastic with shelf hold-down clip.

G. Drawer Slides: ANSI/BHMA A156.9.
   1. Grade 1 and Grade 2: Side mounted and extending under bottom edge of drawer.
      a. Type: Partial extension.
      b. Material: Zinc-plated steel with polymer rollers.
   2. For drawers more than 6 inches high or more than 24 inches wide, provide Grade 1HD-200.

H. Door and Drawer Silencers: ANSI/BHMA A156.16, L03011.

I. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with ANSI/BHMA A156.18 for ANSI/BHMA finish number indicated.
   1. Matte Black: US19; ANSI/BHMA 622 for brass or bronze base.

J. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in ANSI/BHMA A156.9.

2.3 FABRICATION

A. Fabricate architectural cabinets to dimensions, profiles, and details indicated.

B. Complete fabrication, including assembly and hardware application, to maximum extent possible before shipment to Project Site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at Site, provide ample allowance for scribing, trimming, and fitting.
   1. Notify Engineer 7 days in advance of the dates and times architectural cabinet fabrication will be complete.
   2. Trial fit assemblies at manufacturer's shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements before disassembling for shipment.

C. Shop-cut openings to maximum extent possible to receive hardware, appliances, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.

D. Install glass to comply with applicable requirements in Section 08 80 00 "Glazing" and in GANA's "Glazing Manual."
   1. For glass in frames, secure glass with removable stops.
   2. For exposed glass edges, polish and grind smooth.

**PART 3 - EXECUTION**

3.1 PREPARATION

A. Before installation, condition cabinets to humidity conditions in installation areas for not less than 72 hours.

3.2 INSTALLATION

A. Assemble cabinets and complete fabrication at Project Site to extent that it was not completed in the shop.

B. Anchor cabinets to anchors or blocking built in or directly attached to substrates. Secure with wafer-head cabinet installation screws.


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C. Install cabinets level, plumb, and true in line to a tolerance of 1/8-inch in 96 inches using concealed shims.
   1. Scribe and cut cabinets to fit adjoining Work, refinish cut surfaces, and repair damaged finish at cuts.
   2. Install cabinets without distortion so doors and drawers fit openings and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.

## 3.3 ADJUSTING AND CLEANING

A. Repair damaged and defective cabinets, where possible, to eliminate functional and visual defects. Where not possible to repair, replace architectural cabinets. Adjust joinery for uniform appearance.
B. Clean, lubricate, and adjust hardware.
C. Clean cabinets on exposed and semi-exposed surfaces.

END OF SECTION


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# SECTION 06 64 00 - PLASTIC PANELING

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Plastic sheet paneling.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 PROJECT CONDITIONS

A. Environmental Limitations: Do not deliver or install plastic paneling until spaces are enclosed and weathertight and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

## PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

A. Obtain plastic paneling and trim accessories from single manufacturer.

2.2 PLASTIC SHEET PANELING

A. Glass-Fiber-Reinforced Plastic Paneling: Gelcoat-finished, glass-fiber-reinforced plastic panels complying with ASTM D5319.
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. Crane Composites, Inc.
      b. Glasteel.
      c. Marlite.
      d. Nudo Products, Inc.
B. Plastic Sheet Paneling Type-A (FRP1): Basis of Design product is Standard FRP manufactured by Marlite, Inc., Arlington, Texas.
   1. Surface-Burning Characteristics: As follows when tested by a qualified testing agency in accordance with ASTM E84. Identify products with appropriate markings of applicable testing agency.
      a. Flame-Spread Index: 200 or less.
      b. Smoke-Developed Index: 450 or less.
   2. Nominal Thickness: Not less than 0.09-inch.
   3. Surface Finish: Molded pebble texture.
   4. Color: Medium Gray P 430N.

C. Plastic Sheet Paneling Type-B (FRP2): Basis of Design product is Symetrix SmartSeam FRP Panels manufactured by Marlite, Inc., Arlington, Texas.
   1. Surface-Burning Characteristics: As follows when tested by a qualified testing agency in accordance with ASTM E84. Identify products with appropriate markings of applicable testing agency.
      a. Flame-Spread Index: 200 or less.
      b. Smoke-Developed Index: 450 or less.
   2. Nominal Thickness: Not less than 0.09-inch.
   3. Surface Configuration: Subway Vertical 3 inch by 6 inch tile configuration.
   4. Surface Finish: Satin.
   5. Color: Black with White Grout Lines, SS105-G63.

2.3 ACCESSORIES

A. Trim Accessories: Manufacturer's standard one-piece vinyl extrusions designed to retain and cover edges of panels. Provide division bars, inside corners, and caps as needed to conceal edges.
   1. Color: Match panels.
B. Adhesive: As recommended by plastic paneling manufacturer.
C. Sealant: Mildew-resistant, single-component, neutral-curing silicone sealant recommended by plastic paneling manufacturer.
   1. Sealant shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers." The building concentration of formaldehyde shall not exceed half of the indoor recommended exposure limit, or 33 micrograms per cubic meter, and that of acetaldehyde shall not exceed 9 micrograms per cubic meter.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Remove wallpaper, vinyl wall covering, loose or soluble paint, and other materials that might interfere with adhesive bond.
B. Prepare substrate by sanding high spots and filling low spots as needed to provide flat, even surface for panel installation.
C. Clean substrates of substances that could impair adhesive bond including oil, grease, dirt, and dust.
D. Condition panels by unpacking and placing in installation space before installation according to manufacturer's written recommendations.

E. Lay out paneling before installing. Locate panel joints to provide equal panels at ends of walls not less than half the width of full panels.
   1. Mark plumb lines on substrate at panel joint locations for accurate installation.
   2. Locate trim accessories or panel joints to allow clearance at panel edges according to manufacturer's written instructions.

3.3 INSTALLATION

A. Install plastic paneling according to manufacturer's written instructions.
B. Install panels in a full spread of adhesive.
C. Install trim accessories with adhesive. Do not fasten through panels.
D. Fill grooves in trim accessories with sealant before installing panels, and bed inside corner trim in a bead of sealant.
E. Maintain uniform space between panels and wall fixtures. Fill space with sealant.
F. Remove excess sealant and smears as paneling is installed. Clean with solvent recommended by sealant manufacturer and then wipe with clean dry cloths until no residue remains.

END OF SECTION

# SECTION 07 21 00 - THERMAL INSULATION

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Glass-fiber blanket insulation.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 06 16 13 "Insulating Sheathing" for foam-plastic board sheathing installed directly over wood or steel framing.
   3. Section 09 29 00 "Gypsum Board" for sound attenuation blanket used as acoustic insulation.
   4. Section 13 34 19 "Metal Building Systems" for glass-fiber blanket insulation installed within metal building system.

### 1.2 ACTION SUBMITTALS

A. Product Data: For the following:
   1. Glass-fiber blanket insulation.

### 1.3 INFORMATIONAL SUBMITTALS

A. Installer's Certification: Listing type, manufacturer, and R-value of insulation installed in each element of the building thermal envelope.
   1. Sign, date, and post the certification in a conspicuous location on Project Site.

B. Product Test Reports: For each product, for tests performed by a qualified testing agency.

C. Research Reports: For foam-plastic insulation, from ICC-ES.

### 1.4 DELIVERY, STORAGE, AND HANDLING

A. Protect insulation materials from physical damage and from deterioration due to moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

## PART 2 - PRODUCTS

### 2.1 GLASS-FIBER BLANKET INSULATION

A. Glass-Fiber Blanket Insulation, Polypropylene-Scrim-Kraft Faced: ASTM C665, Type II (nonreflective faced), Class A (faced surface with a flame-spread index of 25 or less); Category 1 (membrane is a vapor barrier).
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. CertainTeed Corporation.
      b. CertainTeed Insulation.
      c. Johns Manville; a Berkshire Hathaway company.
      d. Knauf Insulation.

e. Owens Corning.

2. Labeling: Provide identification of mark indicating R-value of each piece of insulation 12 inches and wider in width.

2.2 ACCESSORIES

A. Insulation for Miscellaneous Voids:

1. Glass-Fiber Insulation: ASTM C764, Type II, loose fill; with maximum flame-spread and smoke-developed indexes of five, per ASTM E84.

**PART 3 - EXECUTION**

3.1 PREPARATION

A. Clean substrates of substances that are harmful to insulation, including removing projections capable of puncturing insulation or vapor retarders, or that interfere with insulation attachment.

3.2 INSTALLATION, GENERAL

A. Comply with insulation manufacturer's written instructions applicable to products and applications.

B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.

C. Install insulation with manufacturer's R-value label exposed after insulation is installed.

D. Extend insulation to envelop entire area to be insulated. Fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.

E. Provide sizes to fit applications and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units unless multiple layers are otherwise shown or required to make up total thickness or to achieve R-value.

3.3 INSTALLATION OF INSULATION IN FRAMED CONSTRUCTION

A. Blanket Insulation: Install in cavities formed by framing members according to the following requirements:

1. Use insulation widths and lengths that fill the cavities formed by framing members. If more than one length is required to fill the cavities, provide lengths that will produce a snug fit between ends.

2. Place insulation in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.

3. Maintain 3-inch clearance of insulation around recessed lighting fixtures not rated for or protected from contact with insulation.

4. For metal-framed wall cavities where cavity heights exceed 96 inches, support unfaced blankets mechanically and support faced blankets by taping flanges of insulation to flanges of metal studs.

5. Vapor-Retarder-Faced Blankets: Tape joints and ruptures in vapor-retarder facings, and seal each continuous area of insulation to ensure airtight installation.

a. Exterior Walls: Set units with facing placed toward exterior of construction.

b. Interior Walls: Set units with facing placed toward areas of high humidity.

B. Miscellaneous Voids: Install insulation in miscellaneous voids and cavity spaces where required to prevent gaps in insulation using the following materials:
   1. Glass-Fiber Insulation: Compact to approximately 40 percent of normal maximum volume equaling a density of approximately 2.5 pounds per cubic feet.

3.4 PROTECTION

A. Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes.
B. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION

# SECTION 07 62 00 - SHEET METAL FLASHING AND TRIM

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Formed wall sheet metal fabrications.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 13 34 19 "Metal Building Systems" for sheet metal flashing and trim integral with metal wall panels.

### 1.2 COORDINATION

A. Coordinate sheet metal flashing and trim layout and seams with sizes and locations of penetrations to be flashed, and joints and seams in adjacent materials.

B. Coordinate sheet metal flashing and trim installation with adjoining roofing and wall materials, joints, and seams to provide leakproof, secure, and noncorrosive installation.

### 1.3 ACTION SUBMITTALS

A. Product Data: For each of the following:
   1. Underlayment materials.
   2. Elastomeric sealant.
   3. Butyl sealant.

### 1.4 CLOSEOUT SUBMITTALS

A. Special warranty.

### 1.5 DELIVERY, STORAGE, AND HANDLING

A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage.
   1. Store sheet metal flashing and trim materials away from uncured concrete and masonry.
   2. Protect stored sheet metal flashing and trim from contact with water.

B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal flashing and trim installation.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

A. Sheet metal flashing and trim assemblies, including cleats, anchors, and fasteners, shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.

B. Sheet Metal Standard for Flashing and Trim: Comply with SMACNA's "Engineerural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.

C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

### 2.2 SHEET METALS

A. Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.

B. Stainless Steel Sheet: ASTM A240, Type 316, dead soft, fully annealed; with smooth, flat surface.

### 2.3 MISCELLANEOUS MATERIALS

A. Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal unless otherwise indicated.

B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal.
   1. Fasteners for Stainless Steel Sheet: Series 300 stainless steel.

C. Bituminous Coating: Cold-applied asphalt emulsion in accordance with ASTM D1187.

### 2.4 WALL SHEET METAL FABRICATIONS

A. Through-Wall Flashing: Fabricate continuous flashings in minimum 96-inch-long, but not exceeding 12-foot-long, sections, under copings, and at shelf angles. Fabricate discontinuous lintel, sill, and similar flashings to extend 6 inches beyond each side of wall openings; and form with 2-inch-high, end dams. Fabricate from the following materials:
   1. Stainless Steel: 0.0156-inch thick.

B. Opening Flashings in Frame Construction: Fabricate head, sill, jamb, and similar flashings to extend beyond wall openings. Form head and sill flashing with 2-inch-high, end dams. Fabricate from the following materials:
   1. Stainless Steel: 0.0156-inch thick.

C. Wall Expansion-Joint Cover: Fabricate from the following materials:
   1. Stainless Steel: 0.0188-inch thick.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with installer present, for compliance with requirements for installation tolerances, substrate, and other conditions affecting performance of the Work.
   1. Verify compliance with requirements for installation tolerances of substrates.
   2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
   3. Verify that air- or water-resistant barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION, GENERAL

A. Install sheet metal flashing and trim to comply with details indicated and recommendations of cited sheet metal standard that apply to installation characteristics required unless otherwise indicated on Drawings.
   1. Install fasteners, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
   2. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of sealant.
   3. Anchor sheet metal flashing and trim and other components of the Work securely in place with provisions for thermal and structural movement.
   4. Install sheet metal flashing and trim to fit substrates and to result in watertight performance.
   5. Space individual cleats not more than 12 inches apart. Attach each cleat with at least two fasteners. Bend tabs over fasteners.
   6. Install exposed sheet metal flashing and trim with limited oil-canning, and free of buckling and tool marks.
   7. Do not field cut sheet metal flashing and trim by torch.

B. Metal Protection: Where dissimilar metals contact each other or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.
   1. Coat concealed side of stainless steel sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
   2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.

C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim.
   1. Space movement joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.
   2. Use lapped expansion joints only where indicated on Drawings.

D. Fasteners: Use fastener sizes that penetrate substrate not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.

E. Conceal fasteners and expansion provisions where possible in exposed Work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.
F. Seal joints as required for watertight construction.
   1. Use sealant-filled joints unless otherwise indicated.

## 3.3 INSTALLATION OF WALL FLASHINGS

A. Install sheet metal wall flashing to intercept and exclude penetrating moisture in accordance with cited sheet metal standard unless otherwise indicated. Coordinate installation of wall flashing with installation of wall-opening components such as windows, doors, and louvers.
B. Opening Flashings in Frame Construction: Install continuous head, sill, jamb, and similar flashings to extend beyond wall openings.

## 3.4 CLEANING

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
B. Clean off excess sealants.

## 3.5 PROTECTION

A. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions.
B. On completion of sheet metal flashing and trim installation, remove unused materials and clean finished surfaces as recommended in writing by sheet metal flashing and trim manufacturer.
C. Maintain sheet metal flashing and trim in clean condition during construction.
D. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures, as determined by Engineer.

END OF SECTION

# SECTION 08 11 13 - HOLLOW METAL DOORS AND FRAMES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section includes hollow-metal Work.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 08 71 00 "Door Hardware" for door hardware for hollow-metal doors.

### 1.2 DEFINITIONS

A. Minimum Thickness: Minimum thickness of base metal without coatings according to NAAMM-HMMA 803 or SDI A250.8.

### 1.3 COORDINATION

A. Coordinate anchorage installation for hollow-metal frames. Furnish setting Drawings, templates, and directions for installing anchorages including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project Site in time for installation.

### 1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.
   1. Include construction details, material descriptions, core descriptions, and finishes.
B. Shop Drawings: Include the following:
   1. Elevations of each door type.
   2. Details of doors including vertical- and horizontal-edge details and metal thicknesses.
   3. Frame details for each frame type including dimensioned profiles and metal thicknesses.
   4. Locations of reinforcement and preparations for hardware.
   5. Details of each different wall opening condition.
   6. Details of anchorages, joints, field splices, and connections.
   7. Details of accessories.
   8. Details of moldings, removable stops, and glazing.
   9. Details of conduit and preparations for power, signal, and control systems.
C. Schedule: Provide a schedule of hollow-metal Work prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings. Coordinate with final Door Hardware Schedule.

### 1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver hollow-metal Work palletized, packaged, or crated to provide protection during transit and Project Site storage. Do not use non-vented plastic.
   1. Provide additional protection to prevent damage to factory-finished units.

B. Store hollow-metal work vertically under cover at Project Site with head up. Place on minimum 4-inch-high wood blocking. Provide minimum 1/4-inch space between each stacked door to permit air circulation.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

A. Source Limitations: Obtain hollow-metal Work from single source from single manufacturer.

### 2.2 INTERIOR DOORS AND FRAMES

A. Construct interior doors and frames to comply with the standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances and as specified.

B. Heavy-Duty Doors and Frames: SDI A250.8, Level 2 at locations indicated in the Door and Frame Schedule.
   1. Physical Performance: Level B according to SDI A250.4.
   2. Doors:
      a. Type: As indicated in the Door and Frame Schedule.
      b. Thickness: One-and-three-fourth inches.
      c. Core: Manufacturer's standard kraft-paper honeycomb, polystyrene, polyurethane, polyisocyanurate, mineral-board, or vertical steel-stiffener core at manufacturer's discretion.
   3. Frames:
      a. Construction: Face welded.
   4. Exposed Finish: Prime.

### 2.3 EXTERIOR HOLLOW-METAL DOORS AND FRAMES

A. Construct exterior doors and frames to comply with the standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances and as specified.

B. Extra-Heavy-Duty Doors and Frames: SDI A250.8, Level 3.
   1. Physical Performance: Level A according to SDI A250.4.
   2. Doors:
      a. Type: As indicated in the Door and Frame Schedule.
      b. Thickness: One-and-three-fourth inches.
      c. Face: Metallic-coated steel sheet, minimum thickness of 0.053-inch, with minimum A40 coating.
   3. Frames:
      a. Construction: Face welded.
   4. Exposed Finish: Prime.

### 2.4 BORROWED LITES

A. Hollow-metal frames of uncoated steel sheet, minimum thickness of 0.053-inch.

B. Construction: Face welded.

## 2.5 FRAME ANCHORS

A. Jamb Anchors:
   1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, not less than 0.042-inch thick, with corrugated or perforated straps not less than 2 inches wide by 10 inches long; or wire anchors not less than 0.177-inch thick.
   2. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042-inch thick.

B. Floor Anchors: Formed from same material as frames, minimum thickness of 0.042-inch, and as follows:
   1. Monolithic Concrete Slabs: Clip-type anchors, with two holes to receive fasteners.

## 2.6 MATERIALS

A. Hot-Rolled Steel Sheet: ASTM A1011, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.

B. Frame Anchors: ASTM A879, Commercial Steel (CS), 04Z coating designation; mill phosphatized.

C. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A153.

D. Grout: ASTM C476, except with a maximum slump of 4 inches, as measured according to ASTM C143.

E. Mineral-Fiber Insulation: ASTM C665, Type I (blankets without membrane facing); consisting of fibers manufactured from slag or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively; passing ASTM E136 for combustion characteristics.

F. Glazing: Comply with requirements in Section 08 80 00 "Glazing."

G. Bituminous Coating: Cold-applied asphalt mastic, compounded for 15 mil dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

## 2.7 FABRICATION

A. Fabricate hollow-metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for metal thickness. Where practical, fit and assemble units in manufacturer's plant. To ensure proper assembly at Project Site, clearly identify Work that cannot be permanently factory assembled before shipment.

B. Hollow-Metal Doors:
   1. Steel-Stiffened Door Cores: Provide minimum thickness 0.026-inch, steel vertical stiffeners of same material as face sheets extending full-door height, with vertical webs spaced not more than 6 inches apart. Spot weld to face sheets no more than 5 inches on center. Fill spaces between stiffeners with glass- or mineral-fiber insulation.
   2. Vertical Edges for Single-Acting Doors: Provide beveled or square edges at manufacturer's discretion.
   3. Bottom Edge Closures: Close bottom edges of doors with end closures or channels of same material as face sheets.
   4. Exterior Doors: Provide weep-hole openings in bottoms of exterior doors to permit moisture to escape. Seal joints in top edges of doors against water penetration.


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C. Hollow-Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
   1. Frames: Provide closed tubular members with no visible face seams or joints, fabricated from same material as door frame. Fasten members at crossings and to jambs by butt welding.
   2. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
   3. Grout Guards: Weld guards to frame at back of hardware mortises in frames to be grouted.
   4. Floor Anchors: Weld anchors to bottoms of jambs with at least four spot welds per anchor; however, for slip-on drywall frames, provide anchor clips or countersunk holes at bottoms of jambs.
   5. Jamb Anchors: Provide number and spacing of anchors as follows:
      a. Stud-Wall Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches on center and as follows:
         1) Three anchors per jamb up to 60 inches high.
         2) Four anchors per jamb from 60 to 90 inches high.
         3) Five anchors per jamb from 90 to 96 inches high.
         4) Five anchors per jamb plus one additional anchor per jamb for each 24 inches or fraction thereof above 96 inches high.
      b. Postinstalled Expansion Type: Locate anchors not more than 6 inches from top and bottom of frame. Space anchors not more than 26 inches on center.
   6. Head Anchors: Two anchors per head for frames more than 42 inches wide and mounted in metal-stud partitions.
   7. Door Silencers: Drill stops to receive door silencers where specified in Section 08 71 00 "Door Hardware." Keep holes clear during construction.

D. Fabricate concealed stiffeners and edge channels from either cold- or hot-rolled steel sheet.

E. Hardware Preparation: Factory prepare hollow-metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to SDI A250.6, the Door Hardware Schedule, and templates.
   1. Reinforce doors and frames to receive non-templated, mortised, and surface-mounted door hardware.
   2. Comply with applicable requirements in SDI A250.6 and BHMA A156.115 for preparation of hollow-metal work for hardware.

## 2.8 STEEL FINISHES

A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer.
   1. Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with SDI A250.10; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
B. Examine roughing-in for embedded and built-in anchors to verify actual locations before frame installation.
C. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
D. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

A. Drill and tap doors and frames to receive non-templated, mortised, and surface-mounted door hardware.

### 3.3 INSTALLATION

A. General: Install hollow-metal work plumb, rigid, properly aligned, and securely fastened in place. Comply with Drawings and manufacturer's written instructions.
B. Hollow-Metal Frames: Install hollow-metal frames for doors, transoms, sidelites, borrowed lites, and other openings, of size and profile indicated. Comply with SDI A250.11 or NAAMM-HMMA 840 as required by standards specified.
    1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.
        a. Where frames are fabricated in sections because of shipping or handling limitations, field splice at approved locations by welding face joint continuously; grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces.
        b. Install frames with removable stops located on secure side of opening.
        c. Install door silencers in frames before grouting.
        d. Remove temporary braces necessary for installation only after frames have been properly set and secured.
        e. Check plumb, square, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances.
        f. Field apply bituminous coating to backs of frames that will be filled with grout containing antifreezing agents.
    2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with postinstalled expansion anchors.
    3. Metal-Stud Partitions: Solidly pack mineral-fiber insulation inside frames.
    4. In-Place Concrete or Masonry Construction: Secure frames in place with postinstalled expansion anchors. Countersink anchors, and fill and make smooth, flush, and invisible on exposed faces.


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5. Installation Tolerances: Adjust hollow-metal door frames for squareness, alignment, twist, and plumb to the following tolerances:
   a. Squareness: Plus or minus 1/16-inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
   b. Alignment: Plus or minus 1/16-inch, measured at jambs on a horizontal line parallel to plane of wall.
   c. Twist: Plus or minus 1/16-inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
   d. Plumbness: Plus or minus 1/16-inch, measured at jambs at floor.

C. Hollow-Metal Doors: Fit hollow-metal doors accurately in frames, within clearances specified below. Shim as necessary.
   1. Non-Fire-Rated Steel Doors:
      a. Between Door and Frame Jambs and Head: One-eighth-inch plus or minus 1/32-inch.
      b. Between Edges of Pairs of Doors: One-eighth-inch to 1/4-inch plus or minus 1/32-inch.
      c. At Bottom of Door: Three-fourth-inch plus or minus 1/32-inch.
      d. Between Door Face and Stop: One-sixteenth-inch to 1/8-inch plus or minus 1/32-inch.

## 3.4 ADJUSTING AND CLEANING

A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave Work in complete and proper operating condition. Remove and replace defective Work, including hollow-metal Work that is warped, bowed, or otherwise unacceptable.

B. Remove grout and other bonding material from hollow-metal Work immediately after installation.

C. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.

D. Metallic-Coated Surface Touchup: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.

E. Touchup Painting: Cleaning and touchup painting of abraded areas of paint are specified in painting Sections.

END OF SECTION

# SECTION 08 33 23 - OVERHEAD COILING DOORS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Insulated service doors.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 ACTION SUBMITTALS

A. Product Data: For each type and size of overhead coiling door and accessory.
   1. Include construction details, material descriptions, dimensions of individual components, profiles for slats, and finishes.
B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.
   1. Include points of attachment and their corresponding static and dynamic loads imposed on structure.
   2. Show locations of controls, locking devices, detectors or replaceable fusible links, and other accessories.
   3. Include diagrams for power, signal, and control wiring.

### 1.3 CLOSEOUT SUBMITTALS

A. Maintenance data.

### 1.4 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer for both installation and maintenance of units required for this Project.

### 1.5 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of doors that fail in materials or workmanship within specified warranty period.
   1. Warranty Period: Two years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 DOOR ASSEMBLY

A. Door: Overhead coiling door formed with curtain of interlocking metal slats.
   1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      a. Overhead Door Corporation.

b. Raynor Garage Doors.
c. Windsor Door.

B. Operation Cycles: Door components and operators capable of operating for not less than 20,000.
C. Door Curtain Material: Galvanized steel.
D. Door Curtain Slats: Curved profile slats of center-to-center height.
E. Hood: Galvanized steel.
F. Locking Devices: Equip door with slide bolt for padlock and chain lock keeper.
G. Electric Door Operator:
1. Usage Classification: Medium duty, up to 12 cycles per hour and up to 50 cycles per day.
2. Safety: Listed according to UL 325 by a qualified testing agency for commercial or industrial use.
3. Motor Exposure: Interior.
4. Motor Electrical Characteristics:
a. Horsepower: One-half horse power.
b. Voltage: 115V AC, single phase, 60 Hz.
5. Emergency Manual Operation: Crank type.
6. Control Station(s): Interior mounted.
H. Door Finish:
1. Baked-Enamel or Powder-Coated Finish: Color as selected by Engineer from manufacturer's full range.
2. Interior Curtain-Slat Facing: Match finish of exterior curtain-slat face.

## 2.2 MATERIALS, GENERAL

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

## 2.3 HOODS

A. General: Form sheet metal hood to entirely enclose coiled curtain and operating mechanism at opening head. Contour to fit end brackets to which hood is attached. Roll and reinforce top and bottom edges for stiffness. Form closed ends for surface-mounted hoods and fascia for any portion of between-jamb mounting that projects beyond wall face. Equip hood with intermediate support brackets as required to prevent sagging.
1. Include automatic drop baffle on fire-rated doors to guard against passage of smoke or flame.
2. Exterior-Mounted Doors: Fabricate hood to act as weather protection and with a perimeter sealant-joint-bead profile for applying joint sealant.

## 2.4 LOCKING DEVICES

A. Slide Bolt: Fabricate with side-locking bolts to engage through slots in tracks for locking by padlock, located on both left and right jamb sides, operable from coil side.
B. Safety Interlock Switch: Equip power-operated doors with safety interlock switch to disengage power supply when door is locked.

2.5 MANUAL DOOR OPERATORS

A. General: Equip door with manual door operator by door manufacturer.
B. Crank Operator: Consisting of crank and crank gearbox, steel crank drive shaft, and gear-reduction unit, of type indicated. Size gears to require not more than force to turn crank. Fabricate gearbox to be oiltight and to completely enclose operating mechanism. Provide manufacturer's standard crank-locking device.

2.6 ELECTRIC DOOR OPERATORS

A. General: Electric door operator assembly of size and capacity recommended and provided by door manufacturer for door and operation-cycles requirement specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, control stations, control devices, integral gearing for locking door, and accessories required for proper operation.
   1. Comply with NFPA 70.
   2. Control equipment complying with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6, with NFPA 70 Class 2 control circuit, maximum 24V AV or DC.
B. Motors: Reversible-type motor with controller (disconnect switch) for motor exposure indicated for each door assembly.
C. Control Station: Three-button control station in fixed location with momentary-contact push-button controls labeled "Open" and "Stop" and sustained- or constant-pressure push-button control labeled "Close."
D. Emergency Manual Operation: Equip each electrically powered door with capability for emergency manual operation. Design manual mechanism so required force for door operation does not exceed 30 pound force.
E. Emergency Operation Disconnect Device: Equip operator with hand-operated disconnect mechanism for automatically engaging manual operator and releasing brake for emergency manual operation while disconnecting motor without affecting timing of limit switch. Mount mechanism so it is accessible from floor level. Include interlock device to automatically prevent motor from operating when emergency operator is engaged.

**PART 3 - EXECUTION**

3.1 INSTALLATION, GENERAL

A. Install overhead coiling doors and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports; according to manufacturer's written instructions and as specified.
B. Power-Operated Doors: Install automatic garage doors openers according to UL 325.

END OF SECTION

# SECTION 08 41 13 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Aluminum-framed storefront systems.
   2. Aluminum-framed entrance door systems.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project Site.

### 1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.
   1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: For aluminum-framed entrances and storefronts. Include plans, elevations, Sections, full-size details, and attachments to other Work.
   1. Include details of provisions for assembly expansion and contraction and for draining moisture occurring within the assembly to the exterior.
   2. Include full-size isometric details of each type of vertical-to-horizontal intersection of aluminum-framed entrances and storefronts, showing the following:
      a. Joinery, including concealed welds.
      b. Anchorage.
      c. Expansion provisions.
      d. Glazing.
      e. Flashing and drainage.
   3. Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers.
   4. Include point-to-point wiring diagrams showing the following:
      a. Power requirements for each electrically operated door hardware.
      b. Location and types of switches, signal device, conduit sizes, and number and size of wires.

C. Samples for Verification: For each type of exposed finish required, in manufacturer's standard sizes.

### 1.4 INFORMATIONAL SUBMITTALS

A. Certificates:
   1. Energy Performance Certificates: For aluminum-framed entrances and storefronts, accessories, and components, from manufacturer.
      a. Basis for Certification: NFRC-certified energy performance values for each aluminum-framed entrance and storefront.


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1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For aluminum-framed entrances and storefronts.

1.6 QUALITY ASSURANCE

A. Qualifications:
   1. Installers: An entity that employs installers and supervisors who are trained and approved by manufacturer and that employs a qualified glazing Contractor for this Project who is certified under the North American Contractor Certification Program (NACC) for Architectural Glass & Metal (AG&M) contractors and that employs glazing technicians certified under the Architectural Glass and Metal Technician (AGMT) certification program.
   2. Delegated Design Engineer: A professional Engineer who is legally qualified to practice in state where Project is located and who is experienced in providing engineering services of the type indicated.
   3. Laboratory Mockup Testing Agency: Qualified in accordance with ASTM E699 for testing indicated.
   4. Testing Agency: Qualified in accordance with ASTM E699 for testing indicated and accredited by IAS or ILAC Mutual Recognition Arrangement as complying with ISO/IEC 17025 and acceptable to Owner and Engineer.
   5. Egress Door Inspector: Inspector for field quality-control inspections of egress door assemblies shall comply with qualifications set forth in NFPA 101, Section 7.2.1.15.4 and the following:
      a. DHI's Fire and Egress Door Assembly Inspector (FDAI) certification.

1.7 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of aluminum-framed entrances and storefronts that do not comply with requirements or that fail in materials or workmanship within specified warranty period.
   1. Failures include, but are not limited to, the following:
      a. Structural failures including, but not limited to, excessive deflection.
      b. Noise or vibration created by wind and thermal and structural movements.
      c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
      d. Water penetration through fixed glazing and framing areas.
      e. Failure of operating components.
   2. Warranty Period: Two years from date of Substantial Completion.

B. Special Finish Warranty, Anodized Finishes: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of anodized finishes within specified warranty period.
   1. Deterioration includes, but is not limited to, the following:
      a. Color fading more than 5 Delta E units when tested in accordance with ASTM D 2244.
      b. Chalking in excess of a No. 8 rating when tested in accordance with ASTM D 4214.
      c. Cracking, peeling, or chipping.
   2. Warranty Period: Two years from date of Substantial Completion.


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## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. Commercial Architectural Products, Inc.
   2. EFCO Corporation.
   3. Kawneer North America, an Arconic company.
   4. Oldcastle BuildingEnvelope (OBE); CRH Americas.
   5. Trulite Glass & Aluminum Solutions, LLC.
   6. Tubelite Inc.
   7. U.S. Aluminum; a brand of C.R. Laurence.

B. Source Limitations: Obtain all components of aluminum-framed entrance and storefront system, including framing and accessories, from single manufacturer.

### 2.2 PERFORMANCE REQUIREMENTS

A. General Performance: Comply with performance requirements specified, as determined by testing of aluminum-framed entrances and storefronts representing those indicated for this Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.
   1. Aluminum-framed entrances and storefronts shall withstand movements of supporting structure including, but not limited to, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
   2. Failure also includes the following:
      a. Thermal stresses transferring to building structure.
      b. Glass breakage.
      c. Noise or vibration created by wind and thermal and structural movements.
      d. Loosening or weakening of fasteners, attachments, and other components.
      e. Failure of operating units.

B. Structural Loads:
   1. Wind Loads: As indicated on Drawings.
   2. Other Design Loads: As indicated on Drawings.

C. Deflection of Framing Members Supporting Glass: At design wind load, as follows:
   1. Deflection Normal to Wall Plane: Limited to 1/175 of clear span for spans of up to 13 feet 6 inches and to 1/240 of clear span plus 1/4-inch for spans greater than 13 feet 6 inches.
   2. Deflection Parallel to Glazing Plane: Limited to amount not exceeding that which reduces glazing bite to less than 75 percent of design dimension and that which reduces edge clearance between framing members and glazing or other fixed components to less than 1/8-inch.

D. Structural: Test in accordance with ASTM E330/E330M as follows:
   1. When tested at positive and negative wind-load design pressures, storefront assemblies, including entrance doors, do not evidence deflection exceeding specified limits.


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2. When tested at 150 percent of positive and negative wind-load design pressures, storefront assemblies, including entrance doors and anchorage, do not evidence material failures, structural distress, or permanent deformation of main framing members exceeding 0.2 percent of span.
3. Test Durations: As required by design wind velocity, but not less than 10 seconds.

E. Water Penetration under Static Pressure: Test in accordance with ASTM E331 as follows:
1. No evidence of water penetration through fixed glazing and framing areas, including entrance doors, when tested in accordance with a minimum static-air-pressure differential of 20 percent of positive wind-load design pressure, but not less than 10 pound force per square foot.
2. Maximum Water Leakage: In accordance with AAMA 501.1. Water leakage does not include water controlled by flashing and gutters, or water that is drained to exterior.

F. Energy Performance: Certified and labeled by manufacturer for energy performance as follows:
1. Thermal Transmittance (U-factor):
   a. Fixed Glazing and Framing Areas: U-factor for the system of not more than 0.45 Btu per square foot by h by degrees F as determined in accordance with NFRC 100.
   b. Entrance Doors: U-factor of not more than 0.77 Btu per square foot by h by degrees F as determined in accordance with NFRC 100.
2. Solar Heat-Gain Coefficient (SHGC):
   a. Fixed Glazing and Framing Areas: SHGC for the system of not more than 0.35 as determined in accordance with NFRC 200.
   b. Entrance Doors: SHGC of not more than 0.25 as determined in accordance with NFRC 200.
3. Air Leakage:
   a. Fixed Glazing and Framing Areas: Air leakage for the system of not more than 0.06-cubic foot per minute per square foot at a static-air-pressure differential of 1.57 pounds of force per square foot hen tested in accordance with ASTM E283.
   b. Entrance Doors: Air leakage of not more than 1.0 cubic foot per minute per square foot at a static-air-pressure differential of 1.57 pounds of force per square foot.
4. Condensation Resistance Factor (CRF):
   a. Fixed Glazing and Framing Areas: CRF for the system of not less than 55 as determined in accordance with AAMA 1503.
   b. Entrance Doors: CRF of not less than 63 as determined in accordance with AAMA 1503.

G. Thermal Movements: Allow for thermal movements resulting from ambient and surface temperature changes.
1. Temperature Change: 120 degrees F, ambient; 180 degrees F, material surfaces.
2. Thermal Cycling: No buckling; stress on glass; sealant failure; excess stress on framing, anchors, and fasteners; or reduction of performance when tested in accordance with AAMA 501.5.
   a. High Exterior Ambient-Air Temperature: That which produces an exterior metal-surface temperature of 180 degrees F.
   b. Low Exterior Ambient-Air Temperature: Zero degrees F.
   c. Interior Ambient-Air Temperature: 75 degrees F.

## 2.3 STOREFRONT SYSTEMS

A. Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads.
   1. Exterior Framing Construction: Thermally broken.
   2. Fabrication Method: Field-fabricated stick system.
   3. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
   4. Steel Reinforcement: As required by manufacturer.

B. Backer Plates: Manufacturer's standard, continuous backer plates for framing members, if not integral, where framing abuts adjacent construction.

C. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.

## 2.4 ENTRANCE DOOR SYSTEMS

A. Entrance Doors: Manufacturer's standard glazed entrance doors for manual-swing or automatic operation.
   1. Door Construction: One-and-three-fourths-inch overall thickness, with minimum 0.125-inch-thick, extruded-aluminum tubular rail and stile members. Mechanically fasten corners with reinforcing brackets that are deeply penetrated and fillet welded or that incorporate concealed tie rods.
   2. Door Design: Wide stile; 5-inch nominal width.
   3. Glazing Stops and Gaskets: Beveled, snap-on, extruded-aluminum stops and preformed gaskets.
      a. Provide nonremovable glazing stops on outside of door.
   4. Finish: Match adjacent storefront framing finish.

## 2.5 ENTRANCE DOOR HARDWARE

A. General:
   1. Door Hardware: Hardware not specified in this Section is specified in Section 08 71 00 "Door Hardware."
   2. Cylinders: As specified in Section 08 71 00 "Door Hardware."
   3. References to BHMA Standards: Provide products complying with these standards and requirements for description, quality, and function.

B. Hardware sets for aluminum doors located in Section 08 71 00.10 "Door Hardware Schedule."
   1. Weather Stripping: Manufacturer's standard replaceable components.
   2. Weather Sweeps: Manufacturer's standard exterior-door bottom sweep with concealed fasteners on mounting strip.
   3. Thresholds: BHMA A156.21 raised thresholds beveled with a slope of not more than 1:2, with maximum height of 1/2-inch.

## 2.6 GLAZING

A. Glazing: Comply with Section 08 80 00 "Glazing."Glazing."

B. Glazing Gaskets: Manufacturer's standard sealed-corner pressure-glazing system of black, resilient elastomeric glazing gaskets, setting blocks, and shims or spacers.

C. Glazing Sealants: As recommended by manufacturer.


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D. Structural Glazing Sealants: ASTM C1184 chemically curing silicone formulation that is compatible with system components with which it comes in contact; specifically formulated and tested for use as structural sealant and approved by structural-sealant manufacturer for use in storefront system indicated.
   1. Color: Black.
   2. Weatherseal Sealants: ASTM C920 for Type S; Grade NS; Class 25; Uses NT, G, A, and O; chemically curing silicone formulation that is compatible with structural sealant and other system components with which it comes in contact; recommended by structural-sealant, weatherseal-sealant, and structural-sealant-glazed storefront manufacturers for this use.
      a. Color: Match structural sealant.

2.7 MATERIALS

A. Sheet and Plate: ASTM B209.
B. Extruded Bars, Rods, Profiles, and Tubes: ASTM B221.
C. Structural Profiles: ASTM B308/B308M.

2.8 ACCESSORIES

A. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding fasteners and accessories compatible with adjacent materials.
   1. Use self-locking devices where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration.
   2. Reinforce members as required to receive fastener threads.
   3. Use exposed fasteners with countersunk Phillips screw heads, finished to match framing system.
B. Concealed Flashing: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding flashing compatible with adjacent materials.
C. Bituminous Paint: Cold-applied asphalt-mastic paint containing no asbestos, formulated for 30-mil thickness per coat.
D. Rigid PVC filler.

2.9 FABRICATION

A. Form or extrude aluminum shapes before finishing.
B. Fabricate components that, when assembled, have the following characteristics:
   1. Profiles that are sharp, straight, and free of defects or deformations.
   2. Accurately fitted joints with ends coped or mitered.
   3. Physical and thermal isolation of glazing from framing members.
   4. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
   5. Provisions for field replacement of glazing from exterior.
   6. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
C. Mechanically Glazed Framing Members: Fabricate for flush glazing without projecting stops.
D. Storefront Framing: Fabricate components for assembly using screw-spline system.

E. Entrance Door Frames: Reinforce as required to support loads imposed by door operation and for installing entrance door hardware.
   1. At interior and exterior doors, provide compression weather stripping at fixed stops.
F. Entrance Doors: Reinforce doors as required for installing entrance door hardware.
   1. At pairs of exterior doors, provide sliding-type weather stripping retained in adjustable strip and mortised into door edge.
   2. At exterior doors, provide weather sweeps applied to door bottoms.
G. Entrance Door Hardware Installation: Factory install entrance door hardware to the greatest extent possible. Cut, drill, and tap for factory-installed entrance door hardware before applying finishes.
H. After fabrication, clearly mark components to identify their locations in Project in accordance with Shop Drawings.

2.10 ALUMINUM FINISHES

A. Color Anodic Finish: AAMA 611, AA-M12C22A42/A44, Class I, 0.018-millimeter or thicker.
   1. Color: black.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

A. Comply with manufacturer's written instructions.
B. Do not install damaged components.
C. Fit joints to produce hairline joints free of burrs and distortion.
D. Rigidly secure nonmovement joints.
E. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent impeding movement of moving joints.
F. Seal perimeter and other joints watertight unless otherwise indicated.
G. Metal Protection:
   1. Where aluminum is in contact with dissimilar metals, protect against galvanic action by painting contact surfaces with materials recommended by manufacturer for this purpose or by installing nonconductive spacers.
   2. Where aluminum is in contact with concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.
H. Set continuous sill members and flashing in full sealant bed, as specified in Section 07 92 00 "Joint Sealants," to produce weathertight installation.
I. Install joint filler behind sealant as recommended by sealant manufacturer.
J. Install components plumb and true in alignment with established lines and grades.


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3.3 INSTALLATION OF GLAZING

A. Install glazing as specified in Section 08 80 00 "Glazing."

3.4 INSTALLATION OF STRUCTURAL GLAZING

A. Prepare surfaces that will contact structural sealant in accordance with sealant manufacturer's written instructions, to ensure compatibility and adhesion. Preparation includes, but is not limited to, cleaning and priming surfaces.
B. Set glazing into framing in accordance with sealant manufacturer and framing manufacturer's written instructions and standard practice. Use a spacer or backer as recommended by manufacturer.
C. Set glazing with proper orientation so that coatings face exterior or interior as specified.
D. Hold glazing in place using temporary retainers of type and spacing recommended by manufacturer until structural sealant joint has cured.
E. Apply structural sealant to completely fill cavity in accordance with sealant manufacturer and framing manufacturer's written instructions and in compliance with local codes.
F. Apply structural sealant at temperatures indicated by sealant manufacturer for type of sealant.
G. Allow structural sealant to cure in accordance with manufacturer's written instructions.
H. Clean and protect glass as indicated in Section 08 80 00 "Glazing."

3.5 INSTALLATION OF WEATHERSEAL SEALANT

A. After structural sealant has completely cured, remove temporary retainers and insert backer rod between lites of glass as recommended by sealant manufacturer.
B. Install weatherseal sealant to completely fill cavity, in accordance with sealant manufacturer's written instructions, to produce weatherproof joints.

3.6 INSTALLATION OF ALUMINUM-FRAMED ENTRANCE DOORS

A. Install entrance doors to produce smooth operation and tight fit at contact points.
   1. Exterior Doors: Install to produce weathertight enclosure and tight fit at weather stripping.
   2. Field-Installed Entrance Door Hardware: Install surface-mounted entrance door hardware in accordance with entrance door hardware manufacturers' written instructions using concealed fasteners to greatest extent possible.

3.7 ERECTION TOLERANCES

A. Install aluminum-framed entrances and storefronts to comply with the following maximum tolerances:
   1. Plumb: 1/8-inch in 10 feet; 1/4 inch in 40 feet.
   2. Level: 1/8-inch in 20 feet; 1/4-inch in 40 feet.
   3. Alignment:
      a. Where surfaces abut in line or are separated by reveal or protruding element up to 1/2-inch wide, limit offset from true alignment to 1/1- inch.
      b. Where surfaces are separated by reveal or protruding element from 1/2-inch to 1 inch wide, limit offset from true alignment to 1/8-inch.


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c. Where surfaces are separated by reveal or protruding element of 1 inch wide or more, limit offset from true alignment to 1/4-inch.

4. Location: Limit variation from plane to 1/8-inch in 12 feet; 1/2-inch over total length.

END OF SECTION


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# SECTION 08 71 00 - DOOR HARDWARE

## PART 1 - GENERAL

### 1.1 SUMMARY

A. This Section includes commercial door hardware for the following:
   1. Swinging doors.
   2. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:
   1. Mechanical door hardware.
   2. Electromechanical door hardware.
   3. Cylinders specified for doors in other sections.

C. Related Requirements:
   1. Section 08 11 13 "Hollow Metal Doors and Frames."
   2. Section 08 41 13 "Aluminum-Framed Entrances and Storefronts."

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
   1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
   2. ICC/IBC - International Building Code.
   3. NFPA 70 - National Electrical Code.
   4. NFPA 80 - Fire Doors and Windows.
   5. NFPA 101 - Life Safety Code.
   6. NFPA 105 - Installation of Smoke Door Assemblies.
   7. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:
   1. ANSI/BHMA Certified Product Standards - A156 Series.
   2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
   3. ANSI/UL 294 - Access Control System Units.

### 1.2 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions, and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication, and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
   1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
   2. Organization: Organize the Door Hardware Schedule into Door Hardware Sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.

3. Content: Include the following information:
   a. Type, style, function, size, label, hand, and finish of each door hardware item.
   b. Manufacturer of each item.
   c. Fastenings and other pertinent information.
   d. Location of Door Hardware Set, cross-referenced to Drawings, both on floor plans and in Door and Frame Schedule.
   e. Explanation of abbreviations, symbols, and codes contained in Schedule.
   f. Mounting locations for door hardware.
   g. Door and frame sizes and materials.
   h. Warranty information for each product.
4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other Work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Shop Drawings: Details of electrified access control hardware indicating the following:
1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
   a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
   b. Complete (risers, point-to-point) access control system block wiring diagrams.
   c. Wiring instructions for each electronic component scheduled herein.
2. Electrical Coordination: Coordinate with related Sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Keying Schedule: After a keying meeting with the Owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

E. Informational Submittals:
1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Section 01 70 00 "Execution and Closeout Requirements."

## 1.3 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).

C. Installer Qualifications: A minimum 3 years' documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years' documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Engineer, and Owner concerning both standard and electromechanical door hardware and keying.

E. Source Limitations: Obtain each type and variety of door hardware specified in this Section from a single source unless otherwise indicated.
   1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third-party source will not be accepted.
   2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

F. Each unit to bear third-party permanent label indicating compliance with the referenced testing standards.

G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
   1. Function of building, purpose of each area and degree of security required.
   2. Plans for existing and future key system expansion.
   3. Requirements for key control storage and software.
   4. Installation of permanent keys, cylinder cores and software.
   5. Address and requirements for delivery of keys.

H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.
   1. Prior to installation of door hardware, conduct a Project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates, and physical product samples as required.
   2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
   3. Review sequence of operation narratives for each unique access controlled opening.
   4. Review and finalize construction schedule and verify availability of materials.
   5. Review the required inspecting, testing, commissioning, and demonstration procedures

I. At completion of installation, provide written documentation that components were applied according to manufacturer's instructions and recommendations and according to approved schedule.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference."

1.5 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other Work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other Work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.

C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.6 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

**PART 2 - PRODUCTS**

2.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced Section that products are to be supplied under.

B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

C. Please note that ASSA ABLOY is transitioning the Yale Commercial brand to Arrow. This affects only the brand name; the products and product numbers will remain unchanged. The brand transition is expected to be complete in or about May of 2024, and products shipping after that time will be branded Arrow.

D. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the Specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, General Requirements. Approval of requests is at the discretion of the Engineer, Owner, and their designated consultants.

2.2 HANGING DEVICES

A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:
   a. Two Hinges: For doors with heights up to 60 inches.
   b. Three Hinges: For doors with heights 61 to 90 inches.
   c. Four Hinges: For doors with heights 91 to 120 inches.
   d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
   a. Widths up to 3 Feet: Four-and-one-half-inch standard or heavy weight as specified.
   b. Sizes from 3 Feet 1 Inch to 4 Feet: Five-foot standard or heavy weight as specified.
3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
   a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
   b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
4. Hinge Options: Comply with the following:
   a. Non-Removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.

5. Manufacturers:
   a. McKinney (MK) - TA/T4A Series, 5 knuckle.

B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 continuous geared hinge. with minimum 0.120-inch-thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible, and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.
   1. Manufacturers:
      a. Pemko (PE).

## 2.3 DOOR OPERATING TRIM

A. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
   1. Push/Pull Plates: Minimum .050-inch-thick, size as indicated in Hardware Sets, with beveled edges, secured with exposed screws unless otherwise indicated.
   2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2-1/2 inches from face of door unless otherwise indicated.
   3. Offset Pull Design: Size, shape, and material as indicated in the Hardware Sets. Minimum clearance of 2-1/2 inches from face of door and offset of 90 degrees unless otherwise indicated.
   4. Pulls, where applicable, shall be provided with a 10-inch clearance from the finished floor on the push side to accommodate wheelchair accessibility.
   5. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
   6. Manufacturers:
      a. Rockwood (RO).

## 2.4 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum 10 years' experience designing secured master key systems and have on record a published security keying system policy.
   1. Manufacturers:
      a. Sargent Manufacturing (SA).
      b. Match Existing, Field Verify.

B. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:
   1. Threaded mortise cylinders with rings and cams to suit hardware application.
   2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
   3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
   4. Tubular deadlocks and other auxiliary locks.
   5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
   6. Keyway: Match Facility Standard.

C. Small Format Interchangeable Cores: Provide small format interchangeable cores (SFIC) as specified, core insert, removable by use of a special key; usable with other manufacturers' cylinders.

D. Keying System: Each type of lock and cylinders to be factory keyed.
   1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
   2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
   3. New System: Key locks to a new key system as directed by the Owner.

E. Key Quantity: Provide the following minimum number of keys:
   1. Change Keys per Cylinder: Two.
   2. Master Keys (per Master Key Level/Group): Five.
   3. Construction Keys (where required): Ten.
   4. Construction Control Keys (where required): Two.
   5. Permanent Control Keys (where required): Two.

F. Construction Keying: Provide temporary keyed construction cores.

G. Key Registration List (Bitting List):
   1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
   2. Provide transcript list in writing or electronic file as directed by the Owner.

## 2.5 KEY CONTROL

A. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150 percent of the number of locks required for the Project.
   1. Manufacturers:
      a. Lund Equipment (LU).
         a. MMF Industries (MM).
         b. Telkee (TK).

## 2.6 MECHANICAL LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.
   1. Heavy duty mortise locks shall have a ten-year warranty.
   2. Where specified, provide status indicators with highly reflective color and wording for "locked/unlocked" or "vacant/occupied" with custom wording options if required. Indicator to be located above the cylinder with the inside thumb-turn not blocking the visibility of the indicator status. Indicator window size to be a minimum of 2.1 inches by 0.6-inch with a curved design allowing a 180-degree viewing angle with protective covering to prevent tampering.
   3. Manufacturers:
      a. Sargent Manufacturing (SA) - 8200 Series.

## 2.7 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:
   1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
   2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
   3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
   4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:
   1. Strikes for Mortise Locks and Latches: BHMA A156.13.
   2. Strikes for Bored Locks and Latches: BHMA A156.2.
   3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
   4. Dustproof Strikes: BHMA A156.16.

## 2.8 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:
   1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
   2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
   3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
   4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
   5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
   6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the Hardware Sets.

B. Door Closers, Surface Mounted (Large Body Cast Iron): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control.
   1. Large body cast iron surface mounted door closers shall have a 30-year warranty.
   2. Manufacturers:
      a. Sargent Manufacturing (SA) - 281 Series.

C. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door

size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.

1. Heavy duty surface mounted door closers shall have a 30-year warranty.
2. Manufacturers:
   a. Sargent Manufacturing (SA) - 351 Series.

2.9 ENGINEERURAL TRIM

A. Door Protective Trim
   1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
   2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2 inches less than door width (LDW) on stop side of single doors and 1-inch LDW on stop side of pairs of doors, and not more than 1 inch less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
   3. Where plates are applied to fire rated doors with the top of the plate more than 16 inches above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
   4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:
      a. Stainless Steel: 300 grade, .050-inch thick.
   5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
   6. Manufacturers:
      a. Rockwood (RO).

2.10 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.
   1. Manufacturers:
      a. Rockwood (RO).

C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm, and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.
   1. Manufacturers:
      a. Norton Rixson (RF).
      b. Sargent Manufacturing (SA).,

2.11 ENGINEERURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
   1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
   1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:
   1. Pemko (PE).

2.12 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.13 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware.

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
B. Notify Engineer of any discrepancies or conflicts between the Door Schedule, door types, Drawings, and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
   1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.
B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
   1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Engineerural Hardware for Standard Steel Doors and Frames."
   2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
   3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
   4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 09 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant.
E. Storage: Provide a secure lock up for hardware delivered to the Project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

A. Field Inspection (Punch Report): Reference Section 01 70 00 "Execution and Closeout Requirements." Produce Project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating, and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.
   1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

3.5 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
B. Clean adjacent surfaces soiled by door hardware installation.
C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Owner occupancy.

3.7 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

A. The Hardware Sets represent the design intent and direction of the Owner and Engineer. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the Engineer with corrections made prior to the Bidding process. Omitted items not included in a Hardware Set should be scheduled with the appropriate additional hardware required for proper application and functionality.
   1. Quantities listed are for each pair of doors, or for each single door.
   2. The supplier is responsible for handing and sizing all products.
   3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.

B. Manufacturer's Abbreviations:
   1. MK - McKinney
   2. PE - Pemko
   3. AD - Adams Rite
   4. SA - SARGENT
   5. RO - Rockwood
   6. RF - Rixson

## Hardware Sets

### Set: 1.0

Doors: 108

| | | | | |
|---|---|---|---|---|
| 1 | Continuous Hinge | BSPFM__SLF-HD1 | | PE |
| 1 | Access Control Cyl Lock (By Div 28) | 72 IN100-10G77-BIPS LL | BSP | SA |
| 1 | SFIC Cylinder | as required | BSP | SA |
| 1 | Door Closer w Stop | 281 CPS | BSP | SA |
| 1 | Drop Plate & Mounting Hardware | as required | BSP | SA |
| 1 | Threshold | 2005BSPT x Width | | PE |
| 1 | Perimeter Seal | by door / frame mfg | | |
| 1 | Sweep | 315BSPN x Width | | PE |
| 1 | Antenna (By Div 28) | EXT-10-ANT | | SA |
| 1 | Hub (By Div 28) | AH (coordinate hardware version w Owner) | | SA |

Notes: Door is normally closed, latched, and secured. Valid credential for ingress, free egress at all times. Coordinate with security and electrical.

Access control locking device to be furnished by Authorized Channel Partner (ACP) and installed by Certified Integrator (CI).

**Set: 2.0**

Doors: 112

| | | | | |
|---|---|---|---|---|
| 1 | Continuous Hinge | BSPFM__SLF-HD1 | | PE |
| 1 | Mortise Deadlock | MS1850S x 4066 01 | 335 | AD |
| 1 | SFIC Cylinder | as required | BSP | SA |
| 2 | Offset Door Pull | RM3311-12 | BSP | RO |
| 1 | Door Closer w Stop | 281 CPS | BSP | SA |
| 1 | Drop Plate & Mounting Hardware | as required | BSP | SA |
| 1 | Threshold | 2005BSPT x Width | | PE |
| 1 | Perimeter Seal | by door / frame mfg | | |
| 1 | Sweep | 315BSPN x Width | | PE |

**Set: 3.0**

Doors: 105A, 105B, 105D

| | | | | | |
|---|---|---|---|---|---|
| 1 | Continuous Hinge | BSPFM__HD1 | | PE | |
| 1 | Access Control Cyl Lock (By Div 28) | 72 IN100-10G77-BIPS LL | BSP | SA | ⚡ |
| 1 | SFIC Cylinder | as required | BSP | SA | |
| 1 | Door Closer w Stop | 281 CPS | BSP | SA | |
| 1 | Kick Plate | K1050 10" High x LDW CSK | BSP | RO | |
| 1 | Threshold | 2005BSPT x Width | | PE | |
| 1 | Gasketing | 2891BSPPK (Head & Jambs) | | PE | |
| 1 | Rain Guard | 346BSP x LAR | | PE | |
| 1 | Sweep | 3452BSPV x Width | | PE | |
| 1 | Antenna (By Div 28) | EXT-10-ANT | | SA | ⚡ |
| 1 | Hub (By Div 28) | AH (coordinate hardware version w Owner) | | SA | ⚡ |

Notes: Door is normally closed, latched, and secured. Valid credential for ingress, free egress at all times. Coordinate with security and electrical.

Access control locking device to be furnished by Authorized Channel Partner (ACP) and installed by Certified Integrator (CI).

**Set: 4.0**

Doors: 105E, 106, 107

| | | | | | |
|---|---|---|---|---|---|
| 3 | Hinge, Full Mortise | TA2714 | BSP | MK | |
| 1 | Access Control Cyl Lock (By Div 28) | 72 IN100-10G77-BIPS LL | BSP | SA | ⚡ |
| 1 | SFIC Cylinder | as required | BSP | SA | |
| 1 | Surface Closer | 351 Reg / PA | BSP | SA | |
| 1 | Kick Plate | K1050 10" High x LDW CSK | BSP | RO | |
| 1 | Door Stop | 406 / 409 / 446 as required | BSP | RO | |
| 3 | Silencer | As req'd | | RO | |
| 1 | Antenna (By Div 28) | EXT-10-ANT | | SA | ⚡ |
| 1 | Hub (By Div 28) | AH (coordinate hardware version w Owner) | | SA | ⚡ |

**Set: 5.0**

Doors: 111A, 113, 114

| | | | | | |
|---|---|---|---|---|---|
| 3 | Hinge, Full Mortise | TA2714 | BSP | MK | |
| 1 | Access Control Cyl Lock (By Div 28) | 72 IN100-10G77-BIPS LL | BSP | SA | ⚡ |
| 1 | SFIC Cylinder | as required | BSP | SA | |
| 1 | Surface Closer w Positive Stop | 351 PS | BSP | SA | |
| 1 | Kick Plate | K1050 10" High x LDW CSK | BSP | RO | |
| 3 | Silencer | As req'd | | RO | |
| 1 | Antenna (By Div 28) | EXT-10-ANT | | SA | ⚡ |
| 1 | Hub (By Div 28) | AH (coordinate hardware version w Owner) | | SA | ⚡ |

Notes: Door is normally closed, latched, and secured. Valid credential for ingress, free egress at all times. Coordinate with security and electrical.

Access control locking device to be furnished by Authorized Channel Partner (ACP) and installed by Certified Integrator (CI).

**Set: 6.0**

Doors: 109, 110

| | | | |
|---|---|---|---|
| 3 Hinge, Full Mortise | TA2714 | BSP | MK |
| 1 Privacy Lock | V20 8265 LNL | BSP | SA |
| 1 Surface Closer | 351 Reg / PA | BSP | SA |
| 1 Kick Plate | K1050 10" High x LDW CSK | BSP | RO |
| 1 Door Stop | 406 / 409 / 446 as required | BSP | RO |
| 1 Gasketing | S88BL (Head & Jambs) | | PE |

**Set: 7.0**

Doors: 111B

| | | | |
|---|---|---|---|
| 3 Hinge, Full Mortise | TA2714 | BSP | MK |
| 1 Office Lock | 72 10XG05 LL | BSP | SA |
| 1 SFIC Cylinder | as required | BSP | SA |
| 1 Surf Overhead Stop | 9-X36 | BSP | RF |
| 3 Silencer | As req'd | | RO |

**Set: 8.0**

Doors: 105C

| | |
|---|---|
| 1 Note | All hardware By door mfr |

Notes: Coordinate cylinder requirements.

END OF SECTION

# SECTION 08 80 00 - GLAZING

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Glass products.
   2. Insulating glass.
   3. Glazing tapes.
   4. Miscellaneous glazing materials.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 DEFINITIONS

A. Glass Manufacturers: Firms that produce primary glass, fabricated glass, or both, as defined in referenced glazing publications.

B. Glass Thicknesses: Indicated by thickness designations in millimeters in accordance with ASTM C1036.

C. IBC: International Building Code.

D. Interspace: Space between lites of an insulating-glass unit.

1.3 COORDINATION

A. Coordinate glazing channel dimensions to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses with reasonable tolerances to achieve proper safety margins for glazing retention under each design load case, load case combination, and service condition.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Glass Samples: For each type of glass product other than clear monolithic vision glass; 12 inches square.

C. Glazing Schedule: List glass types and thicknesses for each size opening and location. Use same designations indicated on Drawings.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Protect glazing materials in accordance with manufacturer's written instructions. Prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.

B. Comply with insulating-glass manufacturer's written instructions for venting and sealing units to avoid hermetic seal ruptures due to altitude change.

1.6 FIELD CONDITIONS

A. Environmental Limitations: Do not proceed with glazing when ambient and substrate temperature conditions are outside limits permitted by glazing material manufacturers and when glazing channel substrates are wet from rain, frost, condensation, or other causes.
   1. Do not install glazing sealants when ambient and substrate temperature conditions are outside limits permitted by sealant manufacturer or are below 40 degrees F.

**PART 2 - PRODUCTS**

2.1 MANUFACTURERS

A. General Glass Manufactures: Unless specified otherwise and subject to compliance with requirements, provide products by the following:
   1. AGC Glass Company North America, Inc.
   2. Guardian Glass; SunGuard.
   3. Pilkington North America.
   4. Viracon, Inc.
   5. Vitro Architectural Glass.

2.2 PERFORMANCE REQUIREMENTS

A. General: Installed glazing systems shall withstand normal thermal movement and wind and impact loads (where applicable) without failure, including loss or glass breakage attributable to defective manufacture, fabrication, or installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.

B. Structural Performance: Glazing shall withstand the following design loads within limits and under conditions indicated determined in accordance with the IBC and ASTM E1300:
   1. Design Wind Pressures: As indicated on Drawings.
      a. Wind Design Data: As indicated on Drawings.
   2. Thermal Loads: Design glazing to resist thermal stress breakage induced by differential temperature conditions and limited air circulation within individual glass lites and insulated glazing units.

C. Safety Glazing: Where safety glazing is indicated or required by IBC or other code, provide glazing that complies with 16 CFR 1201, Category II.

D. Thermal and Optical Performance Properties: Provide glass with performance properties specified, as indicated in manufacturer's published test data, based on procedures indicated below:
   1. For insulating-glass units, properties are based on units of thickness indicated for overall unit and for each lite.
   2. U-Factors: Center-of-glazing values, in accordance with NFRC 100 and based on most current non-beta version of LBL's WINDOW computer program, expressed as Btu per square feet by hour by degrees F.

## 2.3 GLASS PRODUCTS, GENERAL

A. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below unless more stringent requirements are indicated. See these publications for glazing terms not otherwise defined in this Section or in referenced standards.
   1. NGA Publications: "Glazing Manual."
   2. AAMA Publications: AAMA GDSG-1, "Glass Design for Sloped Glazing," and AAMA TIR A7, "Sloped Glazing Guidelines."
   3. IGMA Publication for Sloped Glazing: IGMA TB-3001, "Guidelines for Sloped Glazing."
   4. IGMA Publication for Insulating Glass: SIGMA TM-3000, "North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial and Residential Use."

B. Safety Glazing Labeling: Where safety glazing is indicated, permanently mark glazing with certification label of the SGCC or another certification agency acceptable to authorities having jurisdiction or manufacturer. Label shall indicate manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.

C. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass that complies with performance requirements and is not less than thickness indicated.
   1. Thickness of Tinted Glass: Provide same thickness for each tint color indicated throughout Project.

D. Strength: Where annealed float glass is indicated, provide annealed float glass, heat-strengthened float glass, or fully tempered float glass as needed to comply with "Performance Requirements" Article. Where heat-strengthened float glass is indicated, provide heat-strengthened float glass or fully tempered float glass as needed to comply with "Performance Requirements" Article. Where fully tempered float glass is indicated, provide fully tempered float glass.

## 2.4 GLASS PRODUCTS

A. Reflective- and Low-E-Coated Vision Glass: ASTM C1376.
   1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      a. Cardinal Glass Industries.
      b. Guardian Glass; SunGuard.
      c. Saint-Gobain Glass Exprover NA.
      d. Vitro Architectural Glass.

## 2.5 INSULATING GLASS

A. Insulating-Glass Units: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified in accordance with ASTM E2190.
   1. Sealing System: Dual seal, with manufacturer's standard primary and secondary sealants.
   2. Desiccant: Molecular sieve, silica gel, or a blend of both.

2.6 GLAZING TAPES

A. Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based, 100 percent solids elastomeric tape; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated; and complying with ASTM C1281 and AAMA 800 for products indicated below:
   1. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.
   2. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.

2.7 MISCELLANEOUS GLAZING MATERIALS

A. General: Provide products of material, size, and shape complying with referenced glazing standard, recommended in writing by manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.
B. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.
C. Setting Blocks:
   1. Type recommended in writing by sealant or glass manufacturer.
D. Spacers:
   1. Type recommended in writing by sealant or glass manufacturer.
E. Edge Blocks:
   1. Type recommended in writing by sealant or glass manufacturer.

2.8 FABRICATION OF GLAZING UNITS

A. Fabricate glazing units in sizes required to fit openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.
   1. Allow for thermal movements from ambient and surface temperature changes acting on glass framing members and glazing components.
      a. Temperature Change: 120 degrees F, ambient; 180 degrees F, material surfaces.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine framing, glazing channels, and stops, with Installer present, for compliance with the following:
   1. Manufacturing and installation tolerances, including those for size, squareness, and offsets at corners.
   2. Presence and functioning of weep systems.
   3. Minimum required face and edge clearances.
   4. Effective sealing between joints of glass-framing members.
B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings not firmly bonded to substrates.
B. Examine glazing units to locate exterior and interior surfaces. Label or mark units as needed so that exterior and interior surfaces are readily identifiable. Do not use materials that leave visible marks in the completed Work.

3.3 GLAZING, GENERAL

A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.
B. Protect glass edges from damage during handling and installation. Remove damaged glass from Project Site and legally dispose off Project Site. Damaged glass includes glass with edge damage or other imperfections that, when installed, could weaken glass, impair performance, or impair appearance.
C. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.
D. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.
E. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.
F. Provide spacers for glass lites where length plus width is larger than 50 inches.
    1. Locate spacers directly opposite each other on both inside and outside faces of glass. Install correct size and spacing to preserve required face clearances, unless gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and to comply with system performance requirements.
    2. Provide 1/8-inch-minimum bite of spacers on glass and use thickness equal to sealant width. With glazing tape, use thickness slightly less than final compressed thickness of tape.
G. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and in accordance with requirements in referenced glazing publications.
H. Set glass lites in each series with uniform pattern, draw, bow, and similar characteristics.
I. Set glass lites with proper orientation so that coatings face exterior or interior as specified.

3.4 TAPE GLAZING

A. Position tapes on fixed stops so that, when compressed by glass, their exposed edges are flush with or protrude slightly above sightline of stops.
B. Install tapes continuously but not necessarily in one continuous length. Do not stretch tapes to make them fit opening.
C. Cover vertical framing joints by applying tapes to heads and sills first, then to jambs. Cover horizontal framing joints by applying tapes to jambs, then to heads and sills.
D. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.
E. Do not remove release paper from tape until right before each glazing unit is installed.
F. Apply heel bead of elastomeric sealant.

G. Center glass lites in openings on setting blocks, and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.
H. Apply cap bead of elastomeric sealant over exposed edge of tape.

## 3.5 CLEANING AND PROTECTION

A. Immediately after installation, remove non-permanent labels and clean surfaces.
B. Protect glass from contact with contaminating substances resulting from construction operations. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains.
   1. If, despite such protection, contaminating substances do contact with glass, remove substances immediately as recommended in writing by glass manufacturer. Remove and replace glass that cannot be cleaned without damage to coatings.
C. Remove and replace glass that is damaged during construction period.
D. Wash glass on both exposed surfaces not more than 4 days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended in writing by glass manufacturer.
   1. Safety glazing required.

## 3.6 INSULATING GLASS SCHEDULE

A. Low-E-Coated, Tinted Insulating Glass Type G12:
   1. Overall Unit Thickness: 1 inch.
   2. Minimum Thickness of Each Glass Lite: 6 millimeters.
   3. Outdoor Lite: Tinted float glass.
   4. Tint Color: Gray.
   5. Interspace Content: Air.
   6. Indoor Lite: Clear float glass.
   7. Low-E Coating: Sputtered on second surface.
   8. Summer Daytime U-Factor: 0.22 maximum.
   9. SGHC: .25 maximum.

END OF SECTION

# SECTION 09 22 16 - NON-STRUCTURAL METAL FRAMING

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Non-load-bearing steel framing systems for interior partitions.
   2. Suspension systems for interior ceilings and soffits.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.3 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of code-compliance certification for studs and tracks.

1.4 QUALITY ASSURANCE

A. Code-Compliance Certification of Studs and Tracks: Provide documentation that framing members are certified according to the product-certification program of the Certified Steel Stud Association, the Steel Framing Industry Association, the Steel Stud Manufacturers Association, or the Supreme Steel Framing System Association.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Notify manufacturer of damaged materials received prior to installation.
B. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
C. Protect cold-formed metal framing from corrosion, deformation, and other damage during delivery, storage, and handling as required by AISI S202, "Code of Standard Practice for Cold-Formed Steel Structural Framing."

## PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Horizontal Deflection: For composite and non-composite wall assemblies, limited to following ratios of the wall height based on horizontal loading of 5 pounds of force per square foot.
   1. Plaster: 1/360.
   2. Gypsum Board and Other Finishes: 1/240.
B. Design Loads: As indicated on architectural Drawings or 5 pounds of force per square foot minimum as required by the IBC.

2.2 FRAMING SYSTEMS

A. Framing Members, General: Comply with AISI S220 for conditions indicated.
   1. Steel Sheet Components: Comply with AISI S220 requirements for metal unless otherwise indicated
   2. Protective Coating: Comply with AISI S220; ASTM A653, G40; or coating with equivalent corrosion resistance. Galvannealed products are unacceptable.
      a. Coating demonstrates equivalent corrosion resistance with an evaluation report acceptable to authorities having jurisdiction.

B. Studs and Track: AISI S220.
   1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      a. CEMCO; California Expanded Metal Products Co.
      b. ClarkDietrich.
      c. Jaimes Industries.
   2. Minimum Base-Steel Thickness: As required by performance requirements for horizontal deflection.
   3. Depth: As indicated on Drawings.

2.3 SUSPENSION SYSTEMS

A. Tie Wire: ASTM A641, Class 1 zinc coating, soft temper, 0.062-inch-diameter wire, or double strand of 0.048-inch-diameter wire.

B. Wire Hangers: ASTM A641, Class 1 zinc coating, soft temper, 0.16-inch in diameter.

2.4 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards.
   1. Fasteners for Steel Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Suspended Assemblies: Coordinate installation of suspension systems with installation of overhead structure to ensure that inserts and other provisions for anchorages to building structure have been installed to receive hangers at spacing required to support the Work and that hangers will develop their full strength.
   1. Furnish concrete inserts and other devices indicated to other trades for installation in advance of time needed for coordination and construction.

## 3.3 INSTALLATION, GENERAL

A. Installation Standard: ASTM C754.
   1. Gypsum Board Assemblies: Also comply with requirements in ASTM C840 that apply to framing installation.
B. Install framing and accessories plumb, square, and true to line, with connections securely fastened.
C. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.
D. Install bracing at terminations in assemblies.
E. Do not bridge building control and expansion joints with non-load-bearing steel framing members. Frame both sides of joints independently.

## 3.4 INSTALLING FRAMED ASSEMBLIES

A. Install framing system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.
B. Where studs are installed directly against exterior masonry walls or dissimilar metals at exterior walls, install isolation strip between studs and exterior wall.
C. Install studs so flanges within framing system point in same direction.
D. Install tracks at floors and overhead supports. Extend framing full height to structural supports or substrates above suspended ceilings except where partitions are indicated to terminate at suspended ceilings. Continue framing around ducts that penetrate partitions above ceiling.
   1. Door Openings: Screw vertical studs at jambs to jamb anchor clips on door frames; install track section (for cripple studs) at head and secure to jamb studs.
      a. Install two studs at each jamb unless otherwise indicated.
      b. Install cripple studs at head adjacent to each jamb stud, with a minimum 1/2-inch clearance from jamb stud to allow for installation of control joint in finished assembly.
      c. Extend jamb studs through suspended ceilings and attach to underside of overhead structure.
   2. Other Framed Openings: Frame openings other than door openings the same as required for door openings unless otherwise indicated. Install framing below sills of openings to match framing required above door heads.
E. Direct Furring:
   1. Screw to wood framing.
   2. Attach to concrete or masonry with stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches on center.
F. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8-inch from the plane formed by faces of adjacent framing.

## 3.5 INSTALLING CEILING SUSPENSION SYSTEMS

A. Install suspension system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.
   1. Hangers: 48 inches on center.
B. Isolate suspension systems from building structure where they abut or are penetrated by building structure to prevent transfer of loading imposed by structural movement.

C. Suspend hangers from building structure as follows:
   1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structural or suspension system.
      a. Splay hangers only where required to miss obstructions and offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
   2. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with locations of hangers required to support standard suspension system members, install supplemental suspension members and hangers in the form of trapezes or equivalent devices.
      a. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced installation standards.
   3. Wire Hangers: Secure by looping and wire tying, either directly to structures or to inserts, eye screws, or other devices and fasteners that are secure and appropriate for substrate, and in a manner that will not cause hangers to deteriorate or otherwise fail.
   4. Do not attach hangers to steel roof deck.
   5. Do not attach hangers to permanent metal forms. Furnish cast-in-place hanger inserts that extend through forms.
   6. Do not attach hangers to rolled-in hanger tabs of composite steel floor deck.
   7. Do not connect or suspend steel framing from ducts, pipes, or conduit.

D. Installation Tolerances: Install suspension systems that are level to within 1/8-inch in 12 feet measured lengthwise on each member that will receive finishes and transversely between parallel members that will receive finishes.

END OF SECTION

# SECTION 09 29 00 - GYPSUM BOARD

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Interior gypsum board.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 09 22 16 "Non-Structural Metal Framing" for non-structural steel framing and suspension systems that support gypsum board panels.

### 1.2 ACTION SUBMITTALS

A. Product Data: For the following:
   1. Gypsum wallboard.
   2. Gypsum board, Type X.
   3. Interior trim.
   4. Joint treatment materials.
   5. Laminating adhesive.

### 1.3 DELIVERY, STORAGE AND HANDLING

A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

### 1.4 FIELD CONDITIONS

A. Environmental Limitations: Comply with ASTM C840 requirements or gypsum board manufacturer's written instructions, whichever are more stringent.

B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.

C. Do not install panels that are wet, moisture damaged, and mold damaged.
   1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
   2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

## PART 2 - PRODUCTS

### 2.1 GYPSUM BOARD, GENERAL

A. Manufacturers: Unless noted otherwise and subject to compliance with requirements, provide products by the following:
   1. Georgia-Pacific Gypsum LLC.
   2. National Gypsum Company.
   3. USG Corporation.

B. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.2 INTERIOR GYPSUM BOARD

A. Gypsum Wallboard: ASTM C1396.
   1. Thickness: Five-eighths-inch.
   2. Long Edges: Tapered.
B. Gypsum Board, Type X: ASTM C1396.
   1. Thickness: Five-eighths-inch.
   2. Long Edges: Tapered.

2.3 TRIM ACCESSORIES

A. Interior Trim: ASTM C1047.
   1. Material: Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized-steel sheet.
   2. Shapes:
      a. Cornerbead.
      b. U-Bead: J-shaped; exposed short flange does not receive joint compound.
      c. Expansion (control) joint.
      d. Base-of-Wall Moisture Barrier Trim: Galvanized-steel sheet, 2 inches high to extruded PVC, 1/2-inch high.
         1) Manufacturers: Subject to compliance with requirements, provide products by the following:
            a) VersaDry, LLC.
            b) Waterguard.

2.4 .JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C475.
B. Joint Tape:
   1. Interior Gypsum Board: Paper.

C. Joint Compound for Interior Gypsum Board: For each coat, use formulation that is compatible with other compounds applied on previous or for successive coats.
   1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.
   2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound.
      a. Use setting-type compound for installing paper-faced metal trim accessories.
   3. Fill Coat: For second coat, use setting-type, sandable topping compound.
   4. Finish Coat: For third coat, use drying-type, all-purpose compound.

2.5 AUXILIARY MATERIALS

A. Provide auxiliary materials that comply with referenced installation standards and manufacturer's written instructions.
B. Steel Drill Screws: ASTM C1002 unless otherwise indicated.
   1. Use screws complying with ASTM C954 for fastening panels to steel members from 0.033- to 0.112-inch thick.

C. Thermal Insulation: As specified in Section 07 21 00 "Thermal Insulation."

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Examine areas and substrates including welded hollow-metal frames and support framing, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION AND FINISHING OF PANELS, GENERAL

A. Comply with ASTM C840.
B. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16-inch of open space between panels. Do not force into place.
C. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
D. Form control and expansion joints with space between edges of adjoining gypsum panels.
E. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.,) except in chases braced internally.
   1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 square feet in area.
   2. Fit gypsum panels around ducts, pipes, and conduits.
   3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch-wide joints to install sealant.

F. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments. Provide 1/4- to 1/2-inch-wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
G. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

### 3.3 INSTALLATION OF INTERIOR GYPSUM BOARD

A. Install interior gypsum board in the following locations:
   1. Wallboard Type: As indicated on Drawings.
B. Single-Layer Application:
   1. On partitions/walls, apply gypsum panels horizontally (perpendicular to framing) unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.
      a. Stagger abutting end joints not less than one framing member in alternate courses of panels.

2. On Z-shaped furring members, apply gypsum panels vertically (parallel to framing) with no end joints. Locate edge joints over furring members.
3. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

C. Multilayer Application:
1. On partitions/walls, apply gypsum board indicated for base layers and face layers vertically (parallel to framing) with joints of base layers located over stud or furring member and face-layer joints offset at least one stud or furring member with base-layer joints unless otherwise indicated or required by fire-resistance-rated assembly. Stagger joints on opposite sides of partitions.
2. On Z-shaped furring members, apply base layer vertically (parallel to framing) and face layer either vertically (parallel to framing) or horizontally (perpendicular to framing) with vertical joints offset at least one furring member. Locate edge joints of base layer over furring members.
3. Fastening Methods: Fasten base layers and face layers separately to supports with screws.

## 3.4 INSTALLATION OF TRIM ACCESSORIES

A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
B. Control Joints: Install control joints according to ASTM C840 and in specific locations approved by Engineer for visual effect.
C. Interior Trim: Install in the following locations:
1. Cornerbead: Use at outside corners unless otherwise indicated.
2. U-Bead: Use at exposed panel edges.
3. Base-of-Wall Moisture Barrier Trim: Install per manufacture's instructions. At restroom walls and walls within 4 feet of plumbing, provide PVC base-of-wall moisture barrier trim with sealant between trim and floor.

## 3.5 FINISHING GYPSUM BOARD

A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
B. Prefill open joints and damaged surface areas.
C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C840:
1. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.
a. Primer and its application to surfaces are specified in Section 09 91 23 "Interior Painting."

## 3.6 PROTECTION

A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.


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C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
   1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
   2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION

# SECTION 09 51 13 - ACOUSTICAL PANEL CEILINGS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section includes acoustical panels and exposed suspension systems for interior ceilings.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
C. Products furnished, but not installed under this Section, include anchors, clips, and other ceiling attachment devices to be cast in concrete.

### 1.2 INFORMATIONAL SUBMITTALS

A. Field quality-control reports.

### 1.3 DELIVERY, STORAGE, AND HANDLING

A. Deliver acoustical panels, suspension-system components, and accessories to Project Site and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.
B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.

### 1.4 FIELD CONDITIONS

A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
   1. Pressurized Plenums: Operate ventilation system for not less than 48 hours before beginning acoustical panel ceiling installation.

## PART 2 - PRODUCTS

### 2.1 ACOUSTICAL PANELS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1. Armstrong World Industries, Inc.
   2. CertainTeed Corporation.
   3. United States Gypsum Company.
B. Basis of Design product is Dune manufactured by Armstrong World Industries, Inc.
   1. Size: 24 inches by 24 inches by 5/8-inch, item number 1772.
   2. Edge/Joint Detail: Square.
   3. Material: Mineral Fiber.
   4. Color: White.

2.2 METAL SUSPENSION SYSTEM

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1. Armstrong World Industries, Inc.
   2. CertainTeed Corporation.
   3. United States Gypsum Company.

B. Basis of Design product is Prelude XL 15/16-inch Exposed Tee System manufactured by Armstrong World Industries, Inc.
   1. Material: Hot-dipped Galvanized Steel.
   2. Color: White.

2.3 ACCESSORIES

A. Wire Hangers, Braces, and Ties: Provide wires as follows:
   1. Zinc-Coated, Carbon-Steel Wire: ASTM A641, Class 1 zinc coating, soft temper.

B. Hanger Rods: Mild steel, zinc coated or protected with rust-inhibitive paint.

C. Angle Hangers: Angles with legs not less than 7/8-inch wide; formed with 0.04-inch-thick, galvanized-steel sheet complying with ASTM A653, G90 coating designation; with bolted connections and 5/16-inch-diameter bolts.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.

B. Examine acoustical panels before installation. Reject acoustical panels that are wet, moisture damaged, or mold damaged.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders unless otherwise indicated, and comply with layout shown on reflected ceiling plans.

B. Layout openings for penetrations centered on the penetrating items.

## 3.3 INSTALLATION

A. Install acoustical panel ceilings according to ASTM C636 and manufacturer's written instructions.

B. Suspend ceiling hangers from building's structural members and as follows:
   1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
   2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
   3. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension-system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
   4. Secure wire hangers to ceiling-suspension members and to supports above with a minimum of three tight turns. Connect hangers directly to structure or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
   5. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both the structure to which hangers are attached and the type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
   6. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, postinstalled mechanical or adhesive anchors, or power-actuated fasteners that extend through forms into concrete.
   7. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
   8. Do not attach hangers to steel deck tabs.
   9. Do not attach hangers to steel roof deck. Attach hangers to structural members.
   10. Space hangers not more than 48 inches on center along each member supported directly from hangers unless otherwise indicated; provide hangers not more than 8 inches from ends of each member.
   11. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards.

C. Secure bracing wires to ceiling suspension members and to supports with a minimum of four tight turns. Suspend bracing from building's structural members as required for hangers, without attaching to permanent metal forms, steel deck, or steel deck tabs. Fasten bracing wires into concrete with cast-in-place or postinstalled anchors.

D. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.
   1. Apply acoustical sealant in a continuous ribbon concealed on back of vertical legs of moldings before they are installed.
   2. Screw attach moldings to substrate at intervals not more than 16 inches on center and not more than 3 inches from ends. Miter corners accurately and connect securely.
   3. Do not use exposed fasteners, including pop rivets, on moldings and trim.

E. Install suspension-system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.

F. Install acoustical panels with undamaged edges and fit accurately into suspension-system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide precise fit.
   1. Arrange directionally patterned acoustical panels as follows:
      a. As indicated on reflected ceiling plans.
      b. Install panels with pattern running in one direction parallel to long axis of space.
      c. Install panels in a basket-weave pattern.
   2. For square-edged panels, install panels with edges fully hidden from view by flanges of suspension-system runners and moldings.
   3. For reveal-edged panels on suspension-system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
   4. For reveal-edged panels on suspension-system members with box-shaped flanges, install panels with reveal surfaces in firm contact with suspension-system surfaces and panel faces flush with bottom face of runners.
   5. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.
   6. Install hold-down clips in areas indicated; space according to panel manufacturer's written instructions unless otherwise indicated.
   7. Install clean-room gasket system in areas indicated, sealing each panel and fixture as recommended by panel manufacturer's written instructions.
   8. Protect lighting fixtures and air ducts according to requirements indicated for fire-resistance-rated assembly.

## 3.4 ERECTION TOLERANCES

A. Suspended Ceilings: Install main and cross runners level to a tolerance of 1/8-inch in 12 feet, non-cumulative.
B. Moldings and Trim: Install moldings and trim to substrate and level with ceiling suspension system to a tolerance of 1/8-inch in 12 feet, non-cumulative.

## 3.5 CLEANING

A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension-system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage.
B. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION

# SECTION 09 91 23 - INTERIOR PAINTING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Surface preparation and the application of paint systems on:
      a. Concrete.
      b. Steel.
      c. Galvanized metal.
      d. Aluminum (not anodized or otherwise coated).
      e. Gypsum board.
      f. Plywood.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 09 91 13 "Exterior Painting" for surface preparation and the application of paint systems on exterior substrates.

### 1.2 DEFINITIONS

A. Gloss Level 1: Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D523, a matte flat finish.

B. Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D523, a high-side sheen flat, velvet-like finish.

C. Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D523, an eggshell finish.

D. Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D523, a satin-like finish.

E. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523, a semi-gloss finish.

F. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D523, a gloss finish.

### 1.3 ACTION SUBMITTALS

A. Product Data: For each type of product. Include preparation requirements and application instructions.

B. Product List: For each product indicated, include the following:
   1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
   2. VOC content.

### 1.4 DELIVERY, STORAGE, AND HANDLING

A. Delivery and Handling: Deliver products to Project Site in an undamaged condition in manufacturer's original sealed containers, complete with labels and instructions for handling, storing, unpacking, protecting, and installing. Packaging shall bear the manufacturer's label with the following information:
   1. Product name and type (description).
   2. Batch date.

3. Color number.
4. VOC content.
5. Environmental handling requirements.
6. Surface preparation requirements.
7. Application instructions.

B. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 degrees F.
1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.5 FIELD CONDITIONS

A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 degrees F.
B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 degrees F above the dew point; or to damp or wet surfaces.
C. Lead Paint: It is not expected that lead paint will be encountered in the Work.
1. If suspected lead paint is encountered, do not disturb; immediately notify Engineer and Owner.

**PART 2 - PRODUCTS**

2.1 MANUFACTURERS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Sherwin-Williams Company products indicated or comparable product from one of the following:
1. Benjamin Moore & Co.
2. Kwal, Division of Sherwin-Williams.
3. PPG Engineerural Finishes, Inc.
4. Kelly Moore.
5. Dunn Edwards.

B. Source Limitations: Obtain paint materials from single source from single listed manufacturer.
1. Manufacturer's designations listed on a separate color schedule are for color reference only and do not indicate prior approval.

2.2 PAINT, GENERAL

A. Standards: Provide products that comply with manufacturer's premium first quality standards indicated and like VOC limits.
B. Material Compatibility:
1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

C. Colors: As selected by Engineer from manufacturer's full range.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers. Where acceptability of substrate conditions is in question, apply samples and perform in-situ testing to verify compatibility, adhesion, and film integrity of new paint application.
   1. Report, in writing, conditions that may affect application, appearance, or performance of paint.

B. Substrate Conditions:
   1. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
      a. Concrete: Twelve percent.
      b. Masonry (Clay and CMU): Twelve percent.
      c. Wood: Fifteen percent.
      d. Gypsum Board: Twelve percent.
      e. Plaster: Twelve percent.
   2. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
   3. Plaster Substrates: Verify that plaster is fully cured.
   4. Spray-Textured Ceiling Substrates: Verify that surfaces are dry.

C. Proceed with coating application only after unsatisfactory conditions have been corrected; application of coating indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.

B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
   1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.

C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
   1. Remove incompatible primers and re-prime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

D. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer but not less than the following:
   1. SSPC-SP 2, "Hand Tool Cleaning."
   2. SSPC-SP 3, "Power Tool Cleaning."
   3. SSPC-SP 7/NACE No. 4, "Brush-off Blast Cleaning."
   4. SSPC-SP 11, "Power Tool Cleaning to Bare Metal."

E. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.

F. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.

G. Aluminum Substrates: Remove loose surface oxidation.

3.3 APPLICATION

A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."
   1. Use applicators and techniques suited for paint and substrate indicated.
   2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
   3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
   4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
   5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.

B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.

C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.

D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
   1. Paint the following Work where exposed in equipment rooms:
      a. Equipment, including panelboards.
      b. Uninsulated metal piping.
      c. Uninsulated plastic piping.
      d. Pipe hangers and supports.
      e. Metal conduit.
      f. Plastic conduit.
      g. Tanks that do not have factory-applied final finishes.
   2. Paint the following Work where exposed in occupied spaces:
      a. Equipment, including panel boards.
      b. Uninsulated metal piping.
      c. Uninsulated plastic piping.
      d. Pipe hangers and supports.
      e. Metal conduit.
      f. Plastic conduit.
      g. Other items as directed by Engineer.
   3. Paint portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets that are visible from occupied spaces.

## 3.4 FIELD QUALITY CONTROL

A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
   1. Contractor shall touch up and restore painted surfaces damaged by testing.
   2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

## 3.5 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project Site.
B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
C. Protect Work of other trades against damage from paint application. Correct damage to Work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Engineer, and leave in an undamaged condition.
D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

## 3.6 INTERIOR PAINTING SCHEDULE

A. Concrete: Walls and Ceilings, Poured Concrete, Precast Concrete, Unglazed Brick, Cement Board, Tilt-Up, Cast-in-Place including Plaster Walls and Ceilings.
   1. Latex Systems:
      a. Eg-Shel / Satin Finish:
         1) First Coat: S-W Loxon Concrete and Masonry Primer Sealer, LX02W50 (8 mils wet, 3.2 mils dry).
         2) Second Coat: S-W ProMar 200 Zero VOC Latex Eg-Shel B20-2600 Series.
         3) Third Coat; S-W ProMar 200 Zero VOC Latex Eg-Shel B20-2600 Series (4 mils wet, 1.7 mils dry per coat).

B. Wood: Walls, Ceilings, Doors, and Trim.
   1. Latex Systems:
      a. Eg-Shel / Satin Finish:
         1) First Coat: S-W Premium Wall and Wood Primer, B28W8111 (4 mils wet, 1.8 mils dry).
         2) Second Coat: S-W ProClassic Waterborne Acrylic Satin, B20 Series.
         3) Third Coat: S-W ProClassic Waterborne Acrylic Satin, B20 Series (4 mils wet, 1.2 mils dry per coat).

C. Drywall: Walls, Ceilings, Gypsum Board, and similar items.
   1. Latex Systems:
      a. Eg-Shel / Satin Finish:
         1) First Coat: S-W ProMar 200 Zero VOC Interior Latex Primer, B28W2600 (4 mils wet, 1.5 mils dry).
         2) Second Coat: S-W ProMar 200 Zero VOC Latex Eg-Shel, B20-2600 Series.

3) Third: Coat: S-W ProMar 200 Zero VOC Latex Eg-Shel, B20-2600 Series (4 mils wet, 1.7 mils dry per coat).

END OF SECTION

# SECTION 10 28 13 - TOILET ACCESSORIES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Public-use washroom accessories.
   2. Custodial accessories.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 COORDINATION

A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.
B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.
   1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
   2. Include anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
   3. Include electrical characteristics.

## PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
B. Structural Performance: Design accessories and fasteners to comply with the following requirements:
   1. Grab Bars: Installed units are able to resist 250 pounds of force concentrated load applied in any direction and at any point.

2.2 PUBLIC-USE WASHROOM ACCESSORIES

A. Source Limitations: Obtain public-use washroom accessories from single source from single manufacturer.

B. Toilet Tissue (Roll) Dispenser (TTD-1):
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
a. American Specialties, Inc.
b. Bobrick Washroom Equipment, Inc.
c. Bradley Corporation.
2. Description: Double-roll dispenser.
3. Mounting: Surface mounted.
4. Operation: Noncontrol delivery with standard spindle.
5. Capacity: Designed for 4-1/2- or 5-inch-diameter tissue rolls.
6. Material and Finish: Stainless steel, ASTM A480 No. 4 finish (satin).
7. Basis of Design: Bradley model 5263.

C. Paper Towel (Folded) Dispenser/12 Gallon Waste (PTDWR):
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
a. American Specialties, Inc.
b. Bobrick Washroom Equipment, Inc.
c. Bradley Corporation.
2. Mounting: Surface mounted.
3. Minimum Capacity: 600 C-fold or 800 multifold towels.
4. Material and Finish: Stainless steel, ASTM A480 No. 4 finish (satin).
5. Lockset: Tumbler type.
6. Refill Indicator: None.
7. Basis of Design: Bradley model 234-11.

D. Soap Dispenser (SD):
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
a. American Specialties, Inc.
b. Bobrick Washroom Equipment, Inc.
c. Bradley Corporation.
2. Mounting: Surface mounted.
3. Description: Designed for manual operation and dispensing soap in liquid form.
4. Mounting: Vertically oriented, surface mounted.
5. Lockset: Tumbler type.
6. Refill Indicator: Window type.
7. Basis of Design: Bradley model 6562.

E. Grab Bar:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
a. American Specialties, Inc.
b. Bobrick Washroom Equipment, Inc.
c. Bradley Corporation.
2. Mounting: Flanges with concealed fasteners.
3. Material: Stainless steel, 0.05-inch-thick.
a. Finish: Smooth, ASTM A480 No. 4 finish (satin) on ends and slip-resistant texture in grip area.

4. Outside Diameter: One-and-one-fourth inches.
5. Configuration and Length: As indicated on Drawings.
6. Basis of Design product: Bradley model 832.

F. Mirror Unit (M1):
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   a. American Specialties, Inc.
   b. Bobrick Washroom Equipment, Inc.
   c. Bradley Corporation.
2. Frame: Stainless steel channel.
   a. Corners: Manufacturer's standard.
3. Mounting: Surface mounted.
4. Size: 18 inches by 36 inches.
5. Basis of Design product: Bradley model 780-1836.

G. Hook:
1. Description: Double-prong unit.
2. Mounting: Concealed.
3. Material and Finish: Stainless steel, ASTM A480 No. 4 finish (satin).
4. Basis of Design product: Bradley model 9124.

## 2.3 CUSTODIAL ACCESSORIES

A. Custodial Utility Shelf:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   a. American Specialties, Inc.
   b. Bobrick Washroom Equipment, Inc.
   c. Bradley Corporation.
2. Description: With exposed edges turned down not less than 1/2-inch and supported by two triangular brackets welded to shelf underside.
3. Size: 30 inches long by 8 inches deep.
4. Material and Finish: Not less than nominal 0.05-inch-thick stainless steel, ASTM A480 No. 4 finish (satin).
5. Basis of Design product: Bradley model 9983.

B. Custodial Mop and Broom Holder:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   a. American Specialties, Inc.
   b. Bobrick Washroom Equipment, Inc.
   c. Bradley Corporation.
2. Description: Unit with holders,.
3. Mop/Broom Holders: Three, spring-loaded, rubber hat, cam type.
4. Material and Finish: Stainless steel, ASTM A480 No. 4 finish (satin).
5. Basis of Design product: Bradley 9953.

C. Custodial Paper Towel (Folded) Dispenser:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   a. American Specialties, Inc.
   b. Bobrick Washroom Equipment, Inc.
   c. Bradley Corporation.
2. Mounting: Surface mounted.

3. Minimum Capacity: 400 C-fold or 525 multifold towels.
4. Material and Finish: Stainless steel, ASTM A480 No. 4 finish (satin).
5. Lockset: Tumbler type.
6. Refill Indicator: Pierced slots at sides or front.
7. Basis of Design product: Bradley model 250-15.

2.4 MATERIALS

A. Steel Sheet: ASTM A1008, Designation CS (cold rolled, commercial steel), 0.036-inch-minimum nominal thickness.
B. Galvanized-Steel Sheet: ASTM A653, with G60 hot-dip zinc coating.
C. Galvanized-Steel Mounting Devices: ASTM A153, hot-dip galvanized after fabrication.
D. Fasteners: Screws, bolts, and other devices of same material as accessory unit, unless otherwise recommended by manufacturer or specified in this Section, and tamper and theft resistant where exposed, and of stainless or galvanized steel where concealed.
E. Mirrors: ASTM C1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 millmeters thick.

2.5 FABRICATION

A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.
B. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of twoInsert number keys to Owner's representative.

**PART 3 - EXECUTION**

3.1 INSTALLATION

A. Install accessories according to manufacturer's written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.
   1. Remove temporary labels and protective coatings.
B. Grab Bars: Install to comply with specified structural-performance requirements.
C. Shower Seats: Install to comply with specified structural-performance requirements.

3.2 ADJUSTING AND CLEANING

A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.
B. Clean and polish exposed surfaces according to manufacturer's written instructions.

END OF SECTION

# SECTION 10 44 16 - FIRE EXTINGUISHERS

## PART 1 - GENERAL

1.1 SUMMARY

A. Section includes portable, hand-carried fire extinguishers and mounting brackets for fire extinguishers.
B. Related Requirements:
   1. Divisions 01 Specification Sections apply to Work of this Section.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product. Include rating and classification, material descriptions, dimensions of individual components and profiles, and finishes for fire extinguisher and mounting brackets.

1.3 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For fire extinguishers to include in maintenance manuals.

## PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10, "Portable Fire Extinguishers."
B. Fire Extinguishers: Listed and labeled for type, rating, and classification by an independent testing agency acceptable to authorities having jurisdiction.

2.2 PORTABLE, HAND-CARRIED FIRE EXTINGUISHERS

A. Fire Extinguishers: Type, size, and capacity for each mounting bracket (FEB) indicated.
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. JL Industries, Inc.; a division of the Activar Construction Products Group.
      b. Larsens Manufacturing Company.
      c. Potter Roemer LLC.
   2. Handles and Levers: Manufacturer's standard.
   3. Instruction Labels: Include pictorial marking system complying with NFPA 10, Appendix B.
B. Multipurpose Dry-Chemical Type in Steel Container: UL-rated 4-A:60-B:C, 10-pound nominal capacity with monoammonium phosphate-based dry chemical in enameled-steel container.

2.3 MOUNTING BRACKETS (FEB)

A. Mounting Brackets: Manufacturer's standard steel, designed to secure fire extinguisher to wall or structure, of sizes required for types and capacities of fire extinguishers indicated, with red baked-enamel finish.
   1. Manufacturers: Subject to compliance with requirements provide products from the Fire Extinguisher manufacturer or one of the following:
      a. JL Industries, Inc: a division of Activar Construction Products Group.
      b. Larsens Manufacturing Company.
      c. Potter Roemer LLC.
   2. Identification: Letter complying with authorities have jurisdiction for letter style, size, spacing, and location. Locate as indicated by Architect/Engineer.
      a. Identify bracket-mounted fire extinguishers with the words "FIRE EXTINGUISHER" in red letter decals applied to mounting surface.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine fire extinguishers for proper charging and tagging.
   1. Remove and replace damaged, defective, or undercharged fire extinguishers.
B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Install fire extinguishers in locations indicated and in compliance with requirements of authorities having jurisdiction.
B. Mounting Brackets: Fasten mounting brackets to surfaces, square and plumb, at locations indicated.

END OF SECTION

# SECTION 11 40 00 - FOODSERVICE EQUIPMENT

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Owner-Furnished Equipment: Where indicated, Owner will furnish equipment for installation by Contractor.
B. Related Requirements:
   1. Division 01 Specification Sections, apply to this Section.

### 1.2 COORDINATION

A. Coordinate foodservice equipment layout and installation with other Work, including layout and installation of lighting fixtures, HVAC equipment, and fire-suppression system components.
B. Coordinate locations and requirements of utility service connections.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 INSTALLATION

A. Install foodservice equipment level and plumb, according to manufacturer's written instructions.
   1. Connect equipment to utilities.
   2. Provide cutouts in equipment, neatly formed, where required to run service lines through equipment to make final connections.
B. Complete equipment assembly where field assembly is required.
C. Install equipment with access and maintenance clearances that comply with manufacturer's written installation instructions and with requirements of authorities having jurisdiction.
D. Install cabinets and similar equipment on bases in a bed of sealant.
E. Install closure-trim strips and similar items requiring fasteners in a bed of sealant.
F. Install joint sealant in joints between equipment and abutting surfaces with continuous joint backing unless otherwise indicated. Produce airtight, watertight, vermin-proof, sanitary joints.

### 3.2 CLEANING AND PROTECTING

A. After completing installation of equipment, repair damaged finishes.
B. Clean and adjust equipment as required to produce ready-for-use condition.
C. Protect equipment from damage during remainder of the construction period.

END OF SECTION

# SECTION 13 34 19 - METAL BUILDING SYSTEMS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Structural-steel framing.
   2. Metal roof panels.
   3. Metal wall panels.
   4. Thermal insulation.
   5. Accessories.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project Site.

### 1.3 ACTION SUBMITTALS

A. Product Data: For each type of metal building system component, including insulation systems.

B. Shop Drawings: Indicate components by others. Include full building plan, elevations, Sections, details, and attachments to other Work, and insulation systems.

C. Delegated Design Submittals: For metal building systems.
   1. Include analysis data indicating compliance with performance requirements and design data signed and sealed by the qualified professional engineer responsible for their preparation.

### 1.4 WARRANTY

A. Special Warranty on Metal Panel Finishes: Manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
   1. Finish Warranty Period: Twenty years from date of Substantial Completion.

B. Special Weathertightness Warranty for Standing-Seam Metal Roof Panels: Manufacturer agrees to repair or replace standing-seam metal roof panel assemblies that leak or otherwise fail to remain weathertight within specified warranty period.
   1. Warranty Period: Twenty years from date of Substantial Completion.

C. Insulation: Manufacturer agrees to repair or replace system where evidence of degradation or performance is seen within the warranty period.
   1. Warranty Period: Ten years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1. ACI Building Systems, Inc.
   2. Nucor Corporation, Nucor Buildings Group.
   3. Standard Structures, Inc. (SSI).

### 2.2 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 01 40 00 "Quality Requirements," to design metal building system.

B. Structural Performance: Metal building systems to withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated according to procedures in MBMA's "Metal Building Systems Manual."
   1. Design Loads: As indicated on Drawings.
   2. Deflection and Drift Limits:
      a. Design metal building system assemblies to withstand serviceability design loads without exceeding deflections and drift limits recommended in AISC Steel Design Guide No. 3 "Serviceability Design Considerations for Steel Buildings."

C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
   1. Temperature Change: 120 degrees F, ambient; 180 degrees F, material surfaces.

D. Structural Performance for Metal Roof and Wall Panels: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E1592:
   1. Wind Loads: As indicated on Drawings.

E. Air Infiltration for Metal Roof Panels: Air leakage of not more than 0.06 cubic feet per minute per square feet when tested according to ASTM E1680 or ASTM E283 at the following test-pressure difference:
   1. Test-Pressure Difference: 1.57 pound force per square feet.

F. Air Infiltration for Metal Wall Panels: Air leakage of not more than 0.06 cubic feet per minutes per square feet when tested according to ASTM E283 at the following test-pressure difference:
   1. Test-Pressure Difference: 1.57 pounds of force per square feet.

G. Water Penetration for Metal Roof Panels: No water penetration when tested according to ASTM E1646 or ASTM E331 at the following test-pressure difference:
   1. Test-Pressure Difference: 2.86 pounds of force per square feet.

H. Water Penetration for Metal Wall Panels: No water penetration when tested according to ASTM E331 at the following test-pressure difference:
   1. Test-Pressure Difference: 2.86 pounds of force per square feet.

I. Thermal Performance for Opaque Elements: Provide the following maximum U-factors and minimum R-values when tested according to ASTM C1363 or ASTM C518:
   1. Roof:
      a. R-Value: Minimum R-19+R-11 LS.
   2. Walls:
      a. R-Value: Minimum R-13+R6.5ci.

2.3 METAL ROOF PANELS

A. Basis of Design product is Zee-Lock Panel manufactured by Berridge Manufacturing Co., San Antonio, Texas. Standing Seam Concealed Fastener, Metal Roof Panels: Formed with smooth panel between standing mechanically seamed side lap; designed to be installed by lapping side edges of adjacent panels and mechanically seaming panels to supports with extruded vinyl weatherseal on all continuous ribs.
   1. Material: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, nominal uncoated steel thickness. Prepainted by the coil-coating process to comply with ASTM A755.
      a. Exterior Finish: Kynar 500/Hynar 5000.
      b. Color: Cityscape.
   2. Panel Coverage: Sixteen inches.
   3. Panel Height: Two inches.

2.4 METAL WALL PANELS

A. Metal Wall Panel Type-A: Basis of Design product is "M" Panel manufactured by Berridge Manufacturing Co., San Antonio, Texas. Exposed-Fastener, Tapered-Rib, Metal Wall Panels: Formed with raised, trapezoidal major ribs; designed to be installed vertically by lapping side edges of adjacent panels and mechanically attaching panels to supports using exposed fasteners in side laps.
   1. Material: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, nominal uncoated steel thickness. Prepainted by the coil-coating process to comply with ASTM A755.
      a. Exterior Finish: Kynar 500/Hynar 5000.
      b. Color: Cityscape.
   2. Major-Rib Spacing: Six inches on center
   3. Panel Coverage: 36 inches.
   4. Panel Height: 0.75 inches.
   5. Panel Thickness: 22 gauge.

B. Metal Wall Panel Type-B: Basis of Design product is Thin-Line panel manufactured by Berridge Manufacturing Co., San Antonio, Texas. Concealed-Fastener Metal Wall Panels: Formed with smooth finish; designed to be installed vertically by lapping side edges of adjacent panels to supports or solid sheathing using concealed fasteners inside side laps.
   1. Material: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, nominal uncoated steel thickness. Prepainted by the coil-coating process to comply with ASTM A755.
      a. Exterior Finish: Kynar 500/Hynar 5000.
      b. Color: Charcoal Gray.
   2. Panel Coverage: Three and five-eighths inches.
   3. Panel Height: Three-eighths inch.

4. Panel Thickness: 24 gauge.

## 2.5 THERMAL INSULATION

A. Roof Liner Systems: Basis of Design product is the Simple Saver insulation system (with OSHA compliant through fall protection) manufactured by Thermal Design with an installed total roof insulation R-value as listed above and an average installed thickness of 12 inches. Roof system shall be a multi-layer system. A thermal break shall be applied where there is no existing thermal break between metal panel and metal structure.

B. Wall Liner System: Basis of Design product is the Simple Saver insulation system manufactured by Thermal Design with an installed total R-value as listed above and an installed thickness of 8 inches, completely filling cavity between girts. A thermal break shall be applied where there is no existing thermal break between metal panel and metal structure.

## 2.6 ACCESSORIES

A. General: Provide accessories as standard with metal building system manufacturer and as specified. Fabricate and finish accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes. Comply with indicated profiles and with dimensional and structural requirements.
   1. Form exposed sheet metal accessories that are without excessive oil-canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.

B. Roof Panel Accessories: Provide components required for a complete metal roof panel assembly including copings, fasciae, corner units, ridge closures, clips, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal roof panels unless otherwise indicated.

C. Wall Panel Accessories: Provide components required for a complete metal wall panel assembly including copings, fasciae, mullions, sills, corner units, clips, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal wall panels unless otherwise indicated.

D. Flashing and Trim: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.018-inch nominal uncoated steel thickness, prepainted with coil coating; finished to match adjacent metal panels.

E. Gutters: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.018-inch nominal uncoated steel thickness, prepainted with coil coating; finished to match roof fascia and rake trim. Match profile of gable trim, complete with end pieces, outlet tubes, and other special pieces as required. Fabricate in minimum 96-inch-long sections, sized according to SMACNA's "Architectural Sheet Metal Manual."
   1. Gutter Supports: Fabricated from same material and finish as gutters.
   2. Strainers: Bronze, copper, or aluminum wire ball type at outlets.

F. Downspouts: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.018-inch nominal uncoated steel thickness, prepainted with coil coating; finished to match metal wall panels. Fabricate in minimum 10-foot-long sections, complete with formed elbows and offsets.
   1. Mounting Straps: Fabricated from same material and finish as gutters.

G. Simple Saver Insulation Systems accessories:

1. UVMAX Steel Strap, 100 KSI minimum yield high tensile strength steel, galvanized, primed and painted the specified color on the exposed side with clear coat primer on the concealed side.
   a. Size: 0.02-inch by 1inch by continuous length.
   b. Color: White
   c. Fasteners: #12 by 3/4-inch plated self-drilling screws with sealing washers painted to match the specified color for fastening to light gauge steel (up to 12 GA purlins) or #12 by 1-1/4-inch plated self-drilling screws with sealing washers, painted to match the specified color for heavier gauge steel (up to 3/8-inch purlins or bar joists). Always install two fasteners in the end of each strap for safety and to withstand installation stress, and one fastener at all other designated fastening points.
2. Syseal Fabric shall be woven reinforced high-density polyethylene yarns coated on both sides with a continuous polyethylene film. Fabric shall comply with ASTM E84 and be Class A compliant with a flame spread index of 25 or less. This material shall be manufactured in large custom pieces by extrusion welding from roll goods. Pieces shall be fabricated to substantially fit the large defined building areas with minimum practical sealing to be done on job site. Fabric shall be folded to allow for rapid pull-out on the strap support system and certified for fall protection by the manufacturer.
   a. Color: Syseal FP (White), roof and walls.
3. Sealant: Simple Saver System G524 High Tack Sealant.
4. Insulation: Fiberglass blanket or batt insulation meeting ASTM C991 Type 1, ASTM E136, and ASTM E84.
5. Fast-R Insulation Hangers: Preformed, rigid insulation hangers for supporting insulation between wall girts or roof purlins where roof pitch is 4:12 or greater. Coiled hangers are not allowed.
6. Thermal Break: 3/16 inch by 3 inch Quik-Stop Trash Free foam tape, closed cell polyethylene foam with pre-applied adhesive film and peel-off backing

## 2.7 FABRICATION

A. General: Design components and field connections required for erection to permit easy assembly.
   1. Mark each piece and part of the assembly to correspond with previously prepared erection drawings, diagrams, and instruction manuals.
   2. Fabricate structural framing to produce clean, smooth cuts and bends. Punch holes of proper size, shape, and location. Members to be free of cracks, tears, and ruptures.

B. Tolerances: Comply with MBMA's "Metal Building Systems Manual" for fabrication and erection tolerances.

C. Primary Framing: Shop fabricate framing components to indicated size and section, with baseplates, bearing plates, stiffeners, and other items required for erection welded into place. Cut, form, punch, drill, and weld framing for bolted field assembly.

D. Secondary Framing: Shop fabricate framing components to indicated size and section by roll forming or break forming, with baseplates, bearing plates, stiffeners, and other plates required for erection welded into place. Cut, form, punch, drill, and weld secondary framing for bolted field connections to primary framing.

E. Metal Panels: Fabricate and finish metal panels at the factory to greatest extent possible by manufacturer's standard procedures and processes as necessary to fulfill indicated performance requirements. Comply with indicated profiles and with dimensional and structural requirements.
   1. Provide panel profile including major ribs and intermediate stiffening ribs, if any, for full length of metal panel.

2.8. SOURCE QUALITY CONTROL

A. Special Inspection: Owner will engage a qualified special inspector to perform source quality control inspections and to submit reports.
   1. Accredited Manufacturers: Special inspections will not be required if fabrication is performed by an IAS AC472-accredited manufacturer approved by authorities having jurisdiction to perform such Work without special inspection.
B. Product will be considered defective if it does not pass tests and inspections.
C. Prepare test and inspection reports.

**PART 3 - EXECUTION**

3.1 METAL PANEL INSTALLATION, GENERAL

A. General: Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.
   1. Field cut metal panels as required for doors, windows, and other openings. Cut openings as small as possible, neatly to size required, and without damage to adjacent metal panel finishes.
      a. Field cutting of metal panels by torch is not permitted unless approved in writing by manufacturer.
   2. Install metal panels perpendicular to structural supports unless otherwise indicated.
   3. Flash and seal metal panels with weather closures at perimeter of openings and similar elements. Fasten with self-tapping screws.
   4. Locate and space fastenings in uniform vertical and horizontal alignment.
   5. Locate metal panel splices over structural supports with end laps in alignment.
   6. Lap metal flashing over metal panels to allow moisture to run over and off the material.
B. Lap-Seam Metal Panels: Install screw fasteners using power tools with controlled torque adjusted to compress EPDM washers tightly without damage to washers, screw threads, or metal panels. Install screws in predrilled holes.
   1. Arrange and nest side-lap joints so prevailing winds blow over, not into, lapped joints. Lap ribbed or fluted sheets one full rib corrugation. Apply metal panels and associated items for neat and weathertight enclosure. Avoid "panel creep" or application not true to line.
C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with corrosion-resistant coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by metal roof panel manufacturer.

D. Joint Sealers: Install gaskets, joint fillers, and sealants where indicated and where required for weatherproof performance of metal panel assemblies. Provide types of gaskets, fillers, and sealants indicated; or, if not indicated, provide types recommended by metal panel manufacturer.
   1. Seal metal panel end laps with double beads of tape or sealant the full width of panel. Seal side joints where recommended by metal panel manufacturer.
   2. Prepare joints and apply sealants to comply with requirements in Section 07 92 00 "Joint Sealants."

## 3.2 METAL ROOF PANEL INSTALLATION

A. General: Provide metal roof panels of full length from eave to ridge unless otherwise indicated or restricted by shipping limitations.
   1. Install ridge caps as metal roof panel Work proceeds.
   2. Flash and seal metal roof panels with weather closures at eaves and rakes. Fasten with self-tapping screws.

B. Standing-Seam Metal Roof Panels: Secure metal roof panels to supports with seamer recommended by manufacturer.
   1. Provide continuous vinyl weatherseal under heads of standing seams on weather side of metal roof panels.
   2. Provide sealant tape at protruding equipment, vents, and accessories.
   3. Apply a continuous ribbon of sealant tape to weather-side surface of fastenings on end laps and on side laps of nesting-type metal panels, on side laps of ribbed or fluted metal panels, and elsewhere as needed to make metal panels weatherproof to driving rains.

C. Metal Fascia Panels: Align bottom of metal panels and fasten with blind rivets, bolts, or self-drilling or self-tapping screws. Flash and seal metal panels with weather closures where fasciae meet soffits, along lower panel edges, and at perimeter of all openings.

## 3.3 METAL WALL PANEL INSTALLATION

A. General: Install metal wall panels in orientation, sizes, and locations indicated on Drawings. Install panels perpendicular to girts, extending full height of building, unless otherwise indicated. Anchor metal wall panels and other components of the Work securely in place, with provisions for thermal and structural movement.
   1. Unless otherwise indicated, begin metal panel installation at corners with center of rib lined up with line of framing.
   2. Shim or otherwise plumb substrates receiving metal wall panels.
   3. When two rows of metal panels are required, lap panels 4 inches minimum.
   4. When building height requires two rows of metal panels at gable ends, align lap of gable panels over metal wall panels at eave height.
   5. Rigidly fasten base end of metal wall panels and allow eave end free movement for thermal expansion and contraction. Predrill panels.
   6. Flash and seal metal wall panels with weather closures at eaves and rakes and at perimeter of all openings. Fasten with self-tapping screws.
   7. Install screw fasteners in predrilled holes.
   8. Install flashing and trim as metal wall panel work proceeds.
   9. Apply elastomeric sealant continuously between metal base channel (sill angle) and concrete, and elsewhere as indicated on Drawings; if not indicated, as necessary for waterproofing.

10. Align bottom of metal wall panels and fasten with blind rivets, bolts, or self-drilling or self-tapping screws.
11. Provide weatherproof escutcheons for pipe and conduit penetrating exterior walls.

B. Metal Wall Panels: Install metal wall panels on exterior side of girts. Attach metal wall panels to supports with fasteners as recommended by manufacturer.

## 3.4 THERMAL INSULATION INSTALLATION

A. General: Install insulation concurrently with metal panel installation, in thickness indicated to cover entire surface, according to manufacturer's written instructions.
1. Set vapor-retarder-faced units with vapor retarder toward warm side of construction unless otherwise indicated. Do not obstruct ventilation spaces except for firestopping.
2. Tape joints and ruptures in vapor retarder, and seal each continuous area of insulation to the surrounding construction to ensure airtight installation.
3. Install factory-laminated, vapor-retarder-faced blankets straight and true in one-piece lengths, with both sets of facing tabs sealed, to provide a complete vapor retarder.
4. Install blankets straight and true in one-piece lengths. Install vapor retarder over insulation, with both sets of facing tabs sealed, to provide a complete vapor retarder.

B. Blanket Roof Insulation: Comply with the following installation method:
1. Install insulation per manufacturer's written instructions.
2. Over-Framing Installation: Extend insulation and vapor retarder over and perpendicular to top flange of secondary framing. Hold in place by metal roof panels fastened to secondary framing.
3. Between-Purlin Installation: Extend insulation and vapor retarder between purlins. Carry vapor-retarder-facing tabs up and over purlin, overlapping adjoining facing of next insulation course and maintaining continuity of retarder. Hold in place with bands and crossbands below insulation.
4. Retainer Strips: Install retainer strips at each longitudinal insulation joint, straight and taut, nesting with secondary framing to hold insulation in place.

C. Blanket Wall Insulation: Fit insulation vertically between girts, impaled on insulation hangers. Fluff insulation to the specified thickness, insuring there are no gaps or voids. Apply vapor retarder over and perpendicular to top flange of secondary framing. Hold in place by metal wall panels fastened to secondary framing.
1. Retainer Strips: Install retainer strips at each longitudinal insulation joint, straight and taut, nesting with secondary framing to hold insulation in place.
2. Seal wall fabric to the roof fabric and to the base angle, or base cee channel as well as the column flanges.
3. Additional straps are installed along the base angle and each column to retain system permanently in place.

## 3.5 ACCESSORY INSTALLATION

A. General: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.
1. Install components required for a complete metal roof panel assembly, including trim, copings, ridge closures, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.

2. Install components for a complete metal wall panel assembly, including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.
3. Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with corrosion-resistant coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by manufacturer.

B. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible and set units true to line and level. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
1. Install exposed flashing and trim that is without excessive oil-canning, buckling, and tool marks and that is true to line and levels indicated with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and to result in waterproof and weather-resistant performance.
2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped or bayonet-type expansion provisions cannot be used or would not be sufficiently weather resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with mastic sealant (concealed within joints).

C. Gutters: Join sections with riveted-and-soldered or lapped-and-sealed joints. Attach gutters to eave with gutter hangers spaced as required for gutter size, but not more than 36 inches on center using manufacturer's standard fasteners. Provide end closures and seal watertight with sealant. Provide for thermal expansion.

D. Downspouts: Join sections with 1-1/2-inch telescoping joints. Provide fasteners designed to hold downspouts securely 1 inch away from walls; locate fasteners at top and bottom and at approximately 60 inches on center in between.
1. Provide elbows at base of downspouts to direct water away from building.
2. Tie downspouts to underground drainage system indicated.

## 3.6 FIELD QUALITY CONTROL

A. Special Inspections: Owner will engage a qualified special inspector to perform field quality control special inspections and to submit reports.
B. Product will be considered defective if it does not pass tests and inspections.
C. Prepare test and inspection reports.

END OF SECTION

# SECTION 22 05 29 - HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Pipe hangers and supports.
   2. Hanger rods.
   3. Equipment curbs.
   4. Formed steel channel.
   5. Equipment bases and supports.

B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCES

A. American Society of Mechanical Engineers:
   1. ASME B31.1 - Power Piping.
   2. ASME B31.5 - Refrigeration Piping.
   3. ASME B31.9 - Building Services Piping.

B. ASTM International:
   1. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
   2. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
   3. ASTM E814 - Standard Test Method for Fire Tests of Through Penetration Fire Stops.
   4. ASTM F708 - Standard Practice for Design and Installation of Rigid Pipe Hangers.

C. American Welding Society:
   1. AWS D1.1 - Structural Welding Code - Steel.

D. FM Global:
   1. FM - Approval Guide, A Guide to Equipment, Materials & Services Approved By Factory Mutual Research For Property Conservation.

E. Manufacturers Standardization Society of the Valve and Fittings Industry:
   1. MSS SP 58 - Pipe Hangers and Supports - Materials, Design and Manufacturer.
   2. MSS SP 69 - Pipe Hangers and Supports - Selection and Application.
   3. MSS SP 89 - Pipe Hangers and Supports - Fabrication and Installation Practices.

### 1.3 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechanical Requirements."

B. Shop Drawings: Indicate system layout with location including critical dimensions, sizes, and pipe hanger and support locations and detail of trapeze hangers.

C. Product Data:
   1. Hangers and Supports: Submit manufacturers catalog data including load capacity.

D. Design Data: Indicate load carrying capacity of trapeze, multiple pipe, and riser support hangers.

E. Manufacturer's Installation Instructions:
   1. Hangers and Supports: Submit special procedures and assembly of components.
F. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with AWS D1.1 for welding hanger and support attachments to building structure.
B. Perform Work in accordance with State and local standards.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing Products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' experience.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Accept materials on site in original factory packaging, labeled with manufacturer's identification.
B. Protect from weather and construction traffic, dirt, water, chemical, and damage, by storing in original packaging.

1.7 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.8 WARRANTY

A. Section 23 05 00 "General Mechanical Requirements."

**PART 2 - PRODUCTS**

2.1 PIPE HANGERS AND SUPPORTS

A. Plumbing Piping - DWV:
   1. Conform to ASME B31.9, ASTM F708, MSS SP58, MSS SP69, or MSS SP89.
   2. Hangers for Pipe Sizes 1/2- to 1-1/2 inch: Malleable iron or Carbon steel, adjustable swivel, split ring.
   3. Hangers for Pipe Sizes 2 inches and Larger: Carbon steel, adjustable, clevis.
   4. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods.
   5. Wall Support for Pipe Sizes 3 inches and Smaller: Cast iron hook.
   6. Wall Support for Pipe Sizes 4 inches and Larger: Welded steel bracket and wrought steel clamp.
   7. Vertical Support: Steel riser clamp.
   8. Floor Support: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
   9. Copper Pipe Support: Copper-plated, carbon-steel adjustable, ring.

B. Plumbing Piping - Water:
   1. Conform to ASME B31.9, ASTM F708, MSS SP58, MSS SP69, or MSS SP89.
   2. Hangers for Pipe Sizes 1/2- to 1-1/2 inch: Malleable iron or Carbon steel, adjustable swivel, split ring.
   3. Hangers for Cold Pipe Sizes 2 inches and Larger: Carbon steel, adjustable, clevis.
   4. Hangers for Hot Pipe Sizes 2 to 4 inches: Carbon steel, adjustable, clevis.
   5. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods.
   6. Wall Support for Pipe Sizes 3 inches and Smaller: Cast iron hook.
   7. Wall Support for Pipe Sizes 4 inches and Larger: Welded steel bracket and wrought steel clamp.
   8. Vertical Support: Steel riser clamp.
   9. Floor Support for Cold Pipe: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
   10. Floor Support for Hot Pipe Sizes 4 inches and Smaller: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
   11. Copper Pipe Support: Copper-plated, Carbon-steel ring.

2.2 ACCESSORIES

A. Hanger Rods: Mild steel threaded both ends, threaded on one end, or continuous threaded.

2.3 EQUIPMENT CURBS

A. Fabrication: Unless otherwise noted, shall be welded 18 gauge galvanized steel shell and base, mitered 3-inch cant, variable step to match roof insulation, 1-1/2-inch thick insulation, factory installed wood nailer. Provide tapered curbs to match roof slope.

2.4 FORMED STEEL CHANNEL

A. Manufacturers:
   1. B-line, an Eaton business.
   2. Unistrut; Part of Atkore International.
   3. Substitutions: See Section 23 05 00 "General Mechanical Requirements."
B. Product Description: Galvanized 12 gauge thick steel. With holes 1-1/2 inches on center.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verify the existing conditions before starting work.
B. Verify openings are ready to receive sleeves.
C. Verify openings are ready to receive firestopping.

3.2 PREPARATION

A. Obtain permission from Engineer before using powder-actuated anchors.
B. Do not drill or cut structural members without obtaining permission from Engineer.

## 3.3 INSTALLATION - PIPE HANGERS AND SUPPORTS

A. Install in accordance with ASME B31.1, ASME B31.5, ASME 31.9, ASTM F708,MSS SP 58, MSS SP 69, or MSS SP 89.
B. Support horizontal piping as scheduled.
C. Install hangers with minimum 1/2-inch space between finished covering and adjacent work.
D. Place hangers within 12 inches of each horizontal elbow.
E. Use hangers with 1-1/2-inch minimum vertical adjustment.
F. Support horizontal cast iron pipe adjacent to each hub, with 5 feet maximum spacing between hangers.
G. Support vertical piping at every floor. Support vertical cast iron pipe at each floor at hub.
H. Where piping is installed in parallel and at same elevation, provide multiple pipe or trapeze hangers.
I. Support riser piping independently of connected horizontal piping.
J. Provide copper plated hangers and supports for copper piping.
K. Design hangers for pipe movement without disengagement of supported pipe.
L. Prime coat exposed steel hangers and supports. Refer to Section 09 90 00 "Painting and Coating. Hangers and supports located in crawl spaces, pipe shafts, and suspended ceiling spaces are not considered exposed.
M. Provide clearance in hangers and from structure and other equipment for installation of insulation. Refer to Section 23 07 05 "HVAC and Plumbing Insulation."

## 3.4 INSTALLATION - EQUIPMENT BASES AND SUPPORTS

A. Provide housekeeping pads of concrete, minimum 4 inches thick and extending 6 inches beyond supported equipment. Refer to Section 03 30 00 "Cast-In-Place Concrete."
B. Using templates furnished with equipment, install anchor bolts, and accessories for mounting and anchoring equipment.
C. Construct supports of steel members, formed steel channel, or steel pipe and fittings. Brace and fasten with flanges bolted to structure.
D. Provide rigid anchors for pipes after vibration isolation components are installed.

## 3.5 INSTALLATION - FLASHING

A. Provide flexible flashing and metal counterflashing where piping penetrates weather or waterproofed walls, floors, and roofs.
B. Flash vent and soil pipes projecting 3 inches minimum above finished roof surface with lead worked 1-inch minimum into hub, 8 inches minimum clear on sides with 24- by 24-inch sheet size. For pipes through outside walls, turn flanges back into wall and caulk, metal counter-flash, and seal.
C. Flash floor drains in floors with topping over finished areas with lead, 10 inches clear on sides with minimum 36- by 36-inch sheet size. Fasten flashing to drain clamp device.
D. Seal floor drains watertight to adjacent materials.
E. Adjust storm collars tight to pipe with bolts; caulk around top edge. Use storm collars above roof jacks. Screw vertical flange section to face of curb.

## 3.6 FIELD QUALITY CONTROL

A. Inspect installed firestopping for compliance with specifications and submitted schedule.

3.7 CLEANING

A. Clean adjacent surfaces of firestopping materials.

3.8 PROTECTION OF FINISHED WORK

A. Protect adjacent surfaces from damage by material installation.

3.9 SCHEDULES

A. Pipe Hanger Spacing:

| Pipe Size (inches) | Max. Hanger Spacing (feet) | Hanger Rod Diameter (inches) |
|---|---|---|
| 1/2 | 6 | 3/8 |
| 3/4 | 6 | 3/8 |
| 1 | 6 | 3/8 |
| 1 1/4 | 6 | 3/8 |
| 1 1/2 | 10 | 3/8 |
| 2 | 10 | 3/8 |
| 2 1/2 | 10 | 1/2 |
| 3 | 10 | 1/2 |
| 4 | 10 | 5/8 |
| 6 | 10 | 3/4 |
| 8 | 10 | 3/4 |
| PVC (all sizes) | 4 | 3/8 |
| C.I. Bell and Spigot (or No-Hub) and at Joints | 5 | 5/8 |

END OF SECTION


PACKET 7.374 September 12, 2023
PACKET 11.376 November 14, 2023

# SECTION 22 11 00 - FACILITY WATER DISTRIBUTION

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
1. Domestic water piping, within 5 feet of building.
2. Domestic water piping, above grade.
3. Unions and flanges.
4. Valves.
5. Pressure gauges.
6. Pressure gage taps.
7. Thermometers.
8. Relief valves.
9. Strainers.
10. Water hammer arrestors.
11. Mixing valves.
12. Diaphragm-type compression tanks.

B. Related Sections:
1. Division 01 Specification Sections apply to Work of this Section.
2. Section 03 30 00 "Cast-In-Place Concrete:" Execution requirements for placement of concrete house keeping pads specified by this section.
3. Section 22 05 29 "Hangers and Supports" for Plumbing Piping and Equipment: Product requirements for pipe hangers and supports for placement by this section.
4. Section 23 07 05 "HVAC and Plumbing Insulation." Product and execution requirements for pipe insulation.
5. Division 26 Specification Sections for execution requirements for electric connections to equipment specified by this Section.

### 1.2 REFERENCES

A. American National Standards Institute:
1. ANSI Z21.22 - Relief Valves for Hot Water Supply Systems.

B. American Society of Mechanical Engineers:
1. ASME B16.18 - Cast Copper Alloy Solder Joint Pressure Fittings.
2. ASME B16.22 - Wrought Copper and Copper Alloy Solder Joint Pressure Fittings.
3. ASME B16.26 - Cast Copper Alloy Fittings for Flared Copper Tubes.
4. ASME B31.9 - Building Services Piping.
5. ASME B40.1 - Gauges - Pressure Indicating Dial Type - Elastic Element.
6. ASME Section VIII - Boiler and Pressure Vessel Code - Pressure Vessels.
7. ASME Section IX - Boiler and Pressure Vessel Code - Welding and Brazing Qualifications.

C. American Society of Sanitary Engineering:
1. ASSE 1010 - Performance Requirements for Water Hammer Arresters.
2. ASSE 1012 - Performance Requirements for Backflow Preventer with Intermediate Atmospheric Vent.
3. ASSE 1013 - Performance Requirements for Reduced Pressure Principle Backflow Preventers and Reduced Pressure Fire Protection Principle Backflow Preventers.

4. ASSE 5013 - Performance Requirements for Reduced Pressure Principle Backflow Preventers (RP) and Reduced Pressure Fire Protection Principle Backflow Preventers (RFP).
5. ASSE 5015 - Performance Requirements for Testing Double Check Backflow Prevention Assemblies (DC) and Double Check Fire Protection Backflow Prevention Assemblies (RPDF).

D. ASTM International:
1. ASTM A395 - Standard Specification for Ferritic Ductile Iron Pressure-Retaining Castings for Use at Elevated Temperatures.
2. ASTM A536 - Standard Specification for Ductile Iron Castings.
3. ASTM B32 - Standard Specification for Solder Metal.
4. ASTM B42 - Standard Specification for Seamless Copper Pipe, Standard Sizes.
5. ASTM B88 - Standard Specification for Seamless Copper Water Tube.
6. ASTM B584 - Standard Specification for Copper Alloy Sand Castings for General Applications.
7. ASTM E1 - Standard Specification for ASTM Thermometers.
8. ASTM E77 - Standard Test Method for Inspection and Verification of Thermometers.
9. ASTM F1476 - Standard Specification for Performance of Gasketed Mechanical Couplings for Use in Piping Applications.

E. American Welding Society:
1. AWS A5.8 - Specification for Filler Metals for Brazing and Braze Welding.

F. American Water Works Association:

G. Manufacturers Standardization Society of the Valve and Fittings Industry:
1. MSS SP 58 - Pipe Hangers and Supports - Materials, Design and Manufacturer.
2. MSS SP 67 - Butterfly Valves.
3. MSS SP 69 - Pipe Hangers and Supports - Selection and Application.
4. MSS SP 71 - Cast Iron Swing Check Valves, Flanged and Threaded Ends.
5. MSS SP 80 - Bronze Gate, Globe, Angle and Check Valves.
6. MSS SP 85 - Cast Iron Globe & Angle Valves, Flanged and Threaded.
7. MSS SP 89 - Pipe Hangers and Supports - Fabrication and Installation Practices.
8. MSS SP 110 - Ball Valves Threaded, Socket-Welding, Solder Joint, Grooved and Flared Ends.

H. National Electrical Manufacturers Association:
1. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).

I. Plumbing and Drainage Institute:
1. PDI WH201 - Water Hammer Arrester Standard.

J. Underwriters Laboratories Inc.:
1. UL 393 - Indicating Pressure Gauges for Fire-Protection Service.
2. UL 404 - Gauges, Indicating Pressure, for Compressed Gas Service.

## 1.3 SUBMITTALS

A. Division 01 and Section 01 33 00 "Submittal Procedures."

B. Product Data:
1. Piping: Submit data on pipe materials, fittings, and accessories. Submit manufacturer's catalog information.
2. Valves: Submit manufacturers catalog information with valve data and ratings for each service.
3. Domestic Water Specialties: Submit manufacturers catalog information, component sizes, rough-in requirements, service sizes, and finishes.

4. Pumps: Submit pump type, capacity, certified pump curves showing pump performance characteristics with pump and system operating point plotted. Include NPSH curve when applicable. Include electrical characteristics and connection requirements.

C. Manufacturer's Installation Instructions: Submit installation instructions for pumps, valves and accessories.

1.4 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of valves and equipment.
B. Operation and Maintenance Data: Submit spare parts list, exploded assembly views and recommended maintenance intervals.

1.5 QUALITY ASSURANCE

A. For drinking water service, provide valves complying with NSF 61.
B. Perform Work in accordance with State and local standards.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this section with minimum 3 years' experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Accept valves and equipment on site in shipping containers with labeling in place. Inspect for damage.
B. Provide temporary protective coating on cast iron and steel valves.
C. Provide temporary end caps and closures on piping and fittings. Maintain in place until installation.
D. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the Work, and isolating parts of completed system.

1.8 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.9 WARRANTY

A. Section 23 05 00 "General Mechanical Requirements."

1.10 EXTRA MATERIALS

A. Furnish two packing kits for each size valve, two loose keys for outside hose bibs and hose end vacuum breakers for hose bibs, and two pump seals for each pump model.

## PART 2 - PRODUCTS

2.1 DOMESTIC WATER PIPING, BURIED WITHIN 5 FEET OF BUILDING

A. Copper Tubing: ASTM B88, Type K, annealed.
   1. Fittings: ASME B16.18, cast copper, or ASME B16.22, wrought copper.
   2. Joints: Compression connection or Brazed, AWS A5.8 BCuP silver/phosphorus/copper alloy with melting range 1,190 to 1,480 degrees F.

2.2 DOMESTIC WATER PIPING, ABOVE GRADE

A. Copper Tubing: ASTM B88, Type L, hard drawn.
   1. Fittings: ASME B16.18, cast copper alloy or ASME B16.22, wrought copper and bronze.
   2. Joints: ASTM B32, Alloy Grade Sb5 tin-antimony, or Alloy Grade Sn95 tin-silver, lead free solder
   3. Copper Press Fittings:
      a. Manufacturers:
         1) Viega.
         2) Ridge Tool Company.
      b. Press Fittings: Copper and copper alloy press fittings shall conform to material requirements of ASME B 16.18 or ASME B 16.22 and performance criteria of IAPMO PS117. Sealing elements for press fittings shall be EPDM. Sealing elements shall be factory installed. Press ends shall have SC (Smart Connect™) feature design (leakage path). In ProPress 1/2- to 4-inch dimensions the Smart Connect Feature assures leakage of fluids and/or gases from inside the system past the sealing element of an upressed connection. The function of this feature is to provide the installer quick and easy identification of connections which have not been pressed prior to putting the system into operation.

2.3 UNIONS AND FLANGES

A. Unions for Pipe 2 Inches and Smaller:
   1. Copper Piping: Class 150, bronze unions with soldered.
   2. Dielectric Connections: Union with galvanized or plated steel threaded end, copper solder end, water impervious isolation barrier.

B. Flanges for Pipe 2-1/2 Inches and Larger:
   1. Copper Piping: Class 150, slip-on bronze flanges.
   2. Gaskets: 1/16-inch thick preformed neoprene gaskets.

2.4 BALL VALVES

A. Manufacturers:
1. Apollo Flow Controls; Conbraco Industries, Inc.
2. Milwaukee Valve Company.
3. NIBCO INC.
4. Watts.
5. Substitutions: Division 01 and Section 23 05 00 "General Mechanical Requirements," substituted products.

B. Two Inches and Smaller: MSS SP 110, 600 psi WOG, bronze, three piece body, chrome plated bronze ball, full port, teflon seats, blow-out proof stem, solder or threaded ends with union, and lever handle.

2.5 CHECK VALVES

A. Horizontal Swing Check Valves:
1. Manufacturers:
a. Milwaukee Valve Company.
b. NIBCO INC.
c. Apollo Flow Controls.
d. Substitutionss: Division 01 and Section 23 05 00 "General Mechanical Requirements," substituted products.

B. Spring Loaded Check Valves:
1. Manufacturers:
a. NIBCO INC.
b. Milwaukee Valve Colpany.
c. Subsitution: Division 01 and Sect 23 05 00 "General Mechanical Requirements," substituted products.
2. Two Inches and Smaller: MSS SP 80, Class 250, bronze body, in-line spring lift check, silent closing, Buna-N disc, integral seat, solder or threaded ends.
3. Two and One-Half Inches and Larger: MSS SP 71, Class 125, wafer or globe style, cast iron body, bronze seat, center guided bronze disc, stainless steel spring and screws, flanged ends.

2.6 PRESSURE GAGES

A. Manufacturers:
1. Trerice.
2. Weiss.
3. Substitutions: Division 01 and Section 23 05 00 "General Mechanical Requirements" for substituted products.

B. Gage: ASME B40.1, UL 404 with bourdon tube, rotary brass movement, brass socket, front calibration adjustment, black scale on white background.
1. Case: Cast aluminum.
2. Bourdon Tube: Phosphor bronze.
3. Dial Size: 4-1/2-inch diameter.
4. Mid-Scale Accuracy: 1 percent.
5. Scale: Psi.

2.7 PRESSURE GAUGE TAPS

A. Manufacturers:
1. Trerice.
2. Weiss.
3. Substitutions: Division 01 and Section 23 05 00 "General Mechanical Requirements." substituted products.

B. Ball Valve: Brass, 1/4-inch NPT for 250 psi.

2.8 STEM TYPE THERMOMETERS

A. Manufacturers:
1. Trerice.
2. Weiss.
3. Substitutions: Division 01 and Section 23 05 00 "General Mechanical Requirements." substituted products.

B. Thermometer: ASTM E1, red appearing mercury, lens front tube, cast aluminum case with enamel finish.
1. Size: 9 inch scale.
2. Window: Clear Lexan.
3. Stem: Brass, 3/4-inch NPT, 3-1/2 inches long.
4. Accuracy: 2 percent.
5. Calibration: Degrees F.

2.9 RELIEF VALVES

A. Pressure Relief:
1. Bronze body, Teflon seat, steel stem and springs, automatic, direct pressure actuated at maximum 60 psi, UL listed for fuel oil, capacities ASME certified and labeled.

B. Temperature and Pressure Relief:
1. ANSI Z21.22 certified, bronze body, teflon seat, stainless steel stem and springs, automatic, direct pressure actuated, temperature relief maximum 210 degrees F, capacity ASME certified and labeled.

2.10 STRAINERS

A. Manufacturers:
1. Watts.
2. Zurn Industries, LLC.
3. Substitutions: Division 01 and Section 23 05 00 "General Mechanical Requirements." substituted products.

B. Two inches and Smaller: Threaded brass body for 175 psi CWP, Y pattern with 1/32-inch stainless steel perforated screen.

C. One and One-Half Inches to 4 Inches: Class 125, flanged iron body, Y pattern with 1/16-inch stainless steel perforated screen.

D. Five Inches and Larger: Class 125, flanged iron body, basket pattern with 1/8-nch stainless steel perforated screen.

2.11 WATER HAMMER ARRESTORS

A. ASSE 1010; stainless steel construction, piston type sized in accordance with PDI WH-201.
B. Pre-charged suitable for operation in temperature range 34 to 250 degrees F and maximum 150 psi working pressure.

2.12 THERMOSTATIC MIXING VALVES

A. Valve: Chrome plated cast brass body, stainless steel or copper alloy bellows, integral temperature adjustment. Conform to ASSE 1070 to temper water to maximum 110 degrees F.

2.13 DIAPHRAGM-TYPE COMPRESSION TANKS

A. Manufacturers:
   1. Amtrol.
   2. Elbi.
   3. Substitutions: Division 01 and Section 23 05 00 "General Mechanical Requirements." substituted products.
B. Construction: Welded steel, tested and stamped in accordance with ASME Section VIII; supplied with National Board Form U-1, rated for working pressure of 125 psig, with flexible diaphragm sealed into tank, and steel legs or saddles.
C. Accessories: Pressure gage and air-charging fitting.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verify excavations are to required grade, dry, and not over-excavated.

3.2 PREPARATION

A. Ream pipe and tube ends. Remove burrs.
B. Remove scale and dirt, on inside and outside, before assembly.

3.3 INSTALLATION - THERMOMETERS AND GAGES

A. Install one pressure gage for each pump, locate taps before strainers and on suction and discharge of pump; pipe to gage.
B. Install gage taps in piping.
C. Install pressure gauges with pulsation dampers. Provide ball valve to isolate each gage.
D. Install thermometers in piping systems in sockets in short couplings. Enlarge pipes smaller than 2-1/2 inches for installation of thermometer sockets. Allow clearance from insulation.
E. Provide instruments with scale ranges selected according to service with largest appropriate scale.

F. Install gauges and thermometers in locations where they are easily read from normal operating level. Install vertical to 45 degrees off vertical.
G. Adjust gauges and thermometers to final angle, clean windows and lenses, and calibrate to zero.

3.4 INSTALLATION - BURIED PIPING SYSTEMS

A. Verify connection size, location, and invert are as indicated on Drawings.
B. Establish elevations of buried piping with not less than 2 feet of cover.
C. Establish minimum separation of water from sanitary sewer piping piping in accordance with local code.

D. Remove scale and dirt on inside of piping before assembly.
E. Excavate pipe trench in accordance with Section 23 05 00 "General Mechanical Requirements."
F. Route pipe in straight line.
G. Install pipe to allow for expansion and contraction without stressing pipe or joints.
H. Install shutoff valves at locations indicated on Drawings in accordance with this Section.
I. Metallic Pipe: Install plastic ribbon tape continuous over top of pipe. 12 inches above pipeline; coordinate with Section 23 05 00 "General Mechanical Requirements.
J. Non-Metallic Pipe: Install trace wire continuous over top of pipe. Buried 12 inches above pipeine; coordinate with Section 23 05 00 "General Mechanical Requirements."
K. Pipe Cover and Backfilling:
    1. Backfill trench in accordance with Section 23 05 00 "General Mechanical Requirements."
    2. Maintain optimum moisture content of fill material to attain required compaction density.
    3. After hydrostatic test, evenly backfill entire trench in accordance with Section 23 05 00 "General Mechanical Requirements."
    4. Evenly and continuously backfill remaining trench depth in uniform layers with backfill material.
    5. Do not use wheeled or tracked vehicles for tamping.

3.5 INSTALLATION - ABOVE GROUND PIPING

A. Install non-conducting dielectric connections wherever jointing dissimilar metals.
B. Route piping in orderly manner and maintain gradient. Route parallel and perpendicular to walls.
C. Install piping to maintain headroom without interfering with use of space or taking more space than necessary.
D. Group piping whenever practical at common elevations.
E. Slope piping and arrange systems to drain at low points.
F. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.
G. Provide clearance in hangers and from structure and other equipment for installation of insulation and access to valves and fittings. Refer to Section 22 05 29 "Hangers and Supports."
H. Provide access where valves and fittings are not accessible.

I. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welding.
J. Provide support for utility meters in accordance with requirements of utility companies.
K. Prepare exposed, unfinished pipe, fittings, supports, and accessories ready for finish painting. Refer to Division 09.
L. Install domestic water piping in accordance with ASME B31.9.
M. Sleeve pipes passing through partitions, walls and floors.
N. Install unions downstream of valves and at equipment or apparatus connections.
O. Install valves with stems upright or horizontal, not inverted.
P. Install brass male adapters each side of valves in copper piped system. Solder adapters to pipe.
Q. Install ball or butterfly valves for shut-off and to isolate equipment, part of systems, or vertical risers.
R. Install ball or butterfly valves for throttling, bypass, or manual flow control services.

S. Provide lug end butterfly valves adjacent to equipment when functioning to isolate equipment.
T. Provide spring loaded check valves on discharge of water pumps.
U. Install potable water protection devices on plumbing lines where contamination of domestic water may occur; on boiler feed water lines, janitor rooms, fire sprinkler systems, premise isolation, irrigation systems, flush valves, interior and exterior hose bibs.
V. Pipe relief from valves, back-flow preventers and drains to nearest floor drain.
W. Test backflow preventers in accordance with ASSE.
X. Install water hammer arrestors complete with accessible isolation valve on hot and cold water supply piping as shown on Drawings.
Y. Press Connections: Copper press fittings shall be made in accordance with the manufacturer's installation instructions. The tubing shall be fully inserted into the fitting and the tubing marked at the shoulder of the fitting. The fitting alignment shall be checked against the mark on the tubing to assure the tubing is fully engaged (inserted) in the fitting. The joint shall be pressed using the tool approved by the manufacturer.

## 3.6 FIELD QUALITY CONTROL

A. Test domestic water piping system in accordance with applicable code.

3.7 CLEANING

A. Prior to starting work, verify system is complete, flushed and clean.
B. Verify pH of water to be treated is between 7.4 and 7.6 by adding alkali (caustic soda or soda ash) or acid (hydrochloric).
C. Inject disinfectant, free chlorine in liquid, powder and tablet or gas form, throughout system to obtain residual from 50 to 80 milligrams per liter.
D. Bleed water from outlets to obtain distribution and test for disinfectant residual at minimum 15 percent of outlets.
E. Maintain disinfectant in system for 24 hours.
F. When final disinfectant residual tests less than 25 milligrams per liter, repeat treatment.
G. Flush disinfectant from system until residual concentration is equal to incoming water or 1.0 milligrams per liter.
H. Take samples no sooner than 24 hours after flushing, from 10 percent of outlets and from water entry, and analyze in accordance with AWWA C651.

END OF SECTION

# SECTION 22 13 00 - FACILITY SANITARY SEWERAGE

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Sanitary sewer piping buried beyond 5 feet of building.
   2. Sanitary sewer piping above grade.

B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. American Society of Mechanical Engineers:
   1. ASME A112.14.1 - Backwater Valves.
   2. ASME A112.14.3 - Grease Interceptors.
   3. ASME A112.14.4 - Grease Removal Devices.
   4. ASME A112.21.1 - Floor Drains.
   5. ASME B16.1 - Cast Iron Pipe Flanges and Flanged Fittings.
   6. ASME B16.3 - Malleable Iron Threaded Fittings.
   7. ASME B16.4 - Gray Iron Threaded Fittings.
   8. ASME B16.23 - Cast Copper Alloy Solder Joint Drainage Fittings (DWV).
   9. ASME B16.29 - Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings - DWV.
   10. ASME B31.9 - Building Services Piping.

B. ASTM International:
   1. ASTM A47 - Standard Specification for Ferritic Malleable Iron Castings.
   2. ASTM A53 - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
   3. ASTM A74 - Standard Specification for Cast Iron Soil Pipe and Fittings.
   4. ASTM A234 - Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service.
   5. ASTM A395 - Standard Specification for Ferritic Ductile Iron Pressure-Retaining Castings for Use at Elevated Temperatures.
   6. ASTM A536 - Standard Specification for Ductile Iron Castings.
   7. ASTM A746 - Standard Specification for Ductile Iron Gravity Sewer Pipe.
   8. ASTM B32 - Standard Specification for Solder Metal.
   9. ASTM B42 - Standard Specification for Seamless Copper Pipe, Standard Sizes.
   10. ASTM B43 - Standard Specification for Seamless Red Brass Pipe, Standard Sizes.
   11. ASTM B75 - Standard Specification for Seamless Copper Tube.
   12. ASTM B88 - Standard Specification for Seamless Copper Water Tube.
   13. ASTM B251 - Standard Specification for General Requirements for Wrought Seamless Copper and Copper-Alloy Tube.
   14. ASTM B302 - Standard Specification for Threadless Copper Pipe, Standard Sizes.
   15. ASTM B306 - Standard Specification for Copper Drainage Tube (DWV).
   16. ASTM C564 - Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings.

17. ASTM D1784 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
18. ASTM D1785 - Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
19. ASTM D2235 - Standard Specification for Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings.
20. ASTM D2241 - Standard Specification for Polyethylene (PE) Plastic Pipe (SIDR-PR) Based on Controlled Inside Diameter.
21. ASTM D2464 - Standard Specification for Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80.
22. ASTM D2466 - Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40.
23. ASTM D2467 - Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80.
24. ASTM D2564 - Standard Specification for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems.
25. ASTM D2665 - Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings.
26. ASTM D2729 - Standard Specification for Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
27. ASTM D2855 - Standard Practice for Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings.
28. ASTM D3034 - Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
29. ASTM F477 - Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
30. ASTM F708 - Standard Practice for Design and Installation of Rigid Pipe Hangers.
31. ASTM F1476 - Standard Specification for Performance of Gasketed Mechanical Couplings for Use in Piping Applications.

C. Cast Iron Soil Pipe Institute:
   1. CISPI 301 - Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications.
   2. CISPI 310 - Specification for Coupling for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications.

D. Manufacturers Standardization Society of the Valve and Fittings Industry:
   1. MSS SP 58 - Pipe Hangers and Supports - Materials, Design and Manufacturer.
   2. MSS SP 69 - Pipe Hangers and Supports - Selection and Application.
   3. MSS SP 70 - Cast Iron Gate Valves, Flanged and Threaded Ends.
   4. MSS SP 71 - Cast Iron Swing Check Valves, Flanged and Threaded Ends.
   5. MSS SP 80 - Bronze Gate, Globe, Angle and Check Valves.
   6. MSS SP 89 - Pipe Hangers and Supports - Fabrication and Installation Practices.
   7. MSS SP 110 - Ball Valves Threaded, Socket-Welding, Solder Joint, Grooved and Flared Ends.

E. Plumbing and Drainage Institute:
   1. PDI G101 - Standard - Testing and Rating Procedure for Grease Interceptors.

1.3 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechanical Requirements."
B. Product Data:
   1. Piping: Submit data on pipe materials, fittings, and accessories. Submit manufacturers catalog information.
   2. Sanitary Drainage Specialties: Submit manufacturers catalog information, component sizes, rough-in requirements, service sizes, and finishes.
C. Manufacturer's Installation Instructions: Submit installation instructions for material and equipment.
D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of equipment and clean-outs.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with State and local standards.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' experience .

1.7 DELIVERY, STORAGE, AND HANDLING

A. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the Work, and isolating parts of completed system.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Do not install underground piping when bedding is wet or frozen.

1.9 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.10 WARRANTY

A. Section 23 05 00 "General Mechanical Requirements" for product warranties.

## PART 2 - PRODUCTS

2.1 SANITARY SEWER PIPING, BURIED BEYOND 5 FEET OF BUILDING

A. Cast Iron Soil Pipe: ASTM A74, service weight, bell and spigot ends.
   1. Fittings: Cast iron, ASTM A74.
   2. Joints: Hub-and-spigot, CISPI HSN compression type with ASTM C564, neoprene gaskets or lead and oakum.

B. PVC Pipe: ASTM D2729, polyvinyl chloride (PVC) material, bell and spigot solvent sealed ends.
   1. Fittings: PVC, ASTM D2729.
   2. Joints: ASTM D2855, solvent weld with ASTM D2564 solvent cement.

C. PVC Pipe: ASTM D3034, Type PSM, polyvinyl chloride (PVC) material, bell, and spigot style rubber ring sealed gasket joint.
   1. Fittings: PVC, ASTM D3034.
   2. Joints: ASTM F477, elastomeric gaskets.

D. PVC Pipe: ASTM D1785, Schedule 40, polyvinyl chloride (PVC) material, bell and spigot style solvent sealed joint ends.
   1. Fittings: ASTM D2466, Schedule 40, PVC .
   2. Joints: ASTM D2855, solvent weld with ASTM D2564 Solvent cement.

E. Plastic Pipe: ASTM D2665, polyvinyl chloride (PVC) material.
   1. Fittings: PVC, ASTM D2665.
   2. Joints: ASTM D2855, solvent weld with ASTM D2564 solvent cement.

2.2 SANITARY SEWER PIPING, ABOVE GRADE

A. Cast Iron Pipe: ASTM A74, service weight.
   1. Fittings: Cast iron, ASTM A74.
   2. Joints: ASTM C564, rubber gasket joint devices or lead and oakum.

B. Cast Iron Pipe: CISPI 301, hub-less.
   1. Fittings: Cast iron, CISPI 301.
   2. Joints: CISPI 310, neoprene gaskets and stainless steel clamp-and-shield assemblies.

C. Copper Tube: ASTM B306, DWV ASTM B88 ASTM B251 Type L.
   1. Fittings: ASME B16.23, cast bronze, or ASME B16.29, wrought copper.
   2. Joints: Solder, lead free, ASTM B32,95-5 tin-antimony, or tin and silver, with melting range 430 to 535 degrees F.

D. PVC Pipe: ASTM D2729, polyvinyl chloride (PVC) material.
   1. Fittings: ASTM D2729, PVC.
   2. Joints: ASTM D2855, solvent weld with ASTM D2564 solvent cement.

E. PVC Pipe: ASTM D2665, polyvinyl chloride (PVC) material.
   1. Fittings: ASTM D2665, PVC.
   2. Joints: ASTM D2855, solvent weld with ASTM D2564 solvent cement.

F. PVC Pipe: ASTM D1785 Schedule 40 , polyvinyl chloride (PVC) material.
   1. Fittings: ASTM D2466, Schedule 40, PVC .
   2. Joints: ASTM D2855, solvent weld with ASTM D2564 Solvent cement.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify excavations are to required grade, dry, and not over-excavated.

3.2 PREPARATION

A. Ream pipe and tube ends. Remove burrs.
B. Remove scale and dirt, on inside and outside, before assembly.
C. Prepare piping connections to equipment with flanges or unions.
D. Keep open ends of pipe free from scale and dirt. Protect open ends with temporary plugs or caps.

3.3 INSTALLATION - HANGERS AND SUPPORTS

A. Pipe Hangers and Supports:
   1. Install in accordance with Section 22 05 29 "Hangers and Supports."

3.4 INSTALLATION - BURIED PIPING SYSTEMS

A. Verify connection to existing piping system size, location, and invert are as indicated on Drawings.
B. Establish elevations of buried piping with not less than 2 feet of cover.
C. Establish minimum separation of sanitary sewer from other services piping in accordance with local code.
D. Remove scale and dirt on inside of piping before assembly.
E. Excavate pipe trench in accordance with Section 23 05 00 "General Mechanical Requirements."
F. Install pipe to elevation as indicated on Drawings.
G. Route pipe in straight line.
H. Metallic Piping: Install plastic ribbon tape continuous over top of pipe. above pipe. Refer to Section 23 05 53 "Identification for HVAC and Plumbing Piping and Equipment.
I. Non-Metalic Piping: Install trace wire continuous over top of pipe. Refer to Section Section 23 05 00 "General Mechanical Requirements."
J. Pipe Cover and Backfilling:
   1. Backfill trench in accordance with Section 23 05 00 "General Mechanical Requirements."

3.5 INSTALLATION - ABOVE GROUND PIPING

A. Establish invert elevations, slopes for drainage as required by local code. Maintain gradients.
B. Extend cleanouts to finished floor or wall surface. Lubricate threaded cleanout plugs with mixture of graphite and linseed oil. Provide clearances at cleanout for snaking drainage system.
C. Encase exterior cleanouts in concrete flush with grade.
D. Install floor cleanouts at elevation to accommodate finished floor.
E. Provide non-conducting dielectric connections wherever jointing dissimilar metals.

F. Route piping in orderly manner and maintain gradient. Route parallel and perpendicular to walls.
G. Install piping to maintain headroom. Do not spread piping, conserve space.
H. Group piping whenever practical at common elevations.
I. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.
J. Provide clearance in hangers and from structure and other equipment for installation of insulation.
K. Provide access where valves and fittings are not accessible.
L. Install piping penetrating roofed areas to maintain integrity of roof assembly.
M. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welding.
N. Prepare exposed, unfinished pipe, fittings, supports, and accessories ready for finish painting. Refer to Division 09 Finishes.
O. Install bell and spigot pipe with bell end upstream.
P. Sleeve pipes passing through partitions, walls and floors.
Q. Install firestopping at fire rated construction perimeters and openings containing penetrating sleeves and piping. Refer to Division 07.
R. Support cast iron drainage piping at every joint.

## 3.6 FIELD QUALITY CONTROL

A. Test sanitary waste and vent piping system in accordance with applicable code.

END OF SECTION

# SECTION 22 33 00 - ELECTRIC DOMESTIC WATER HEATERS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Electric water heaters.
B. Related Sections:
   1. Division 01 Specification Section apply to Work of this Section.
   2. Section 03 30 00 "Cast-in-Place Concrete:" Execution requirements for concrete housekeeping pads specified by this Section.
   3. Section: 22 11 00 "Facility Water Distribution:" Supply connections to domestic water heaters.
   4. Section 26 05 91 "Equipment Wiring Systems:" Electric connection specified by this Section.

### 1.2 REFERENCES

A. American Society of Heating, Refrigerating and Air-Conditioning Engineers:
   1. ASHRAE 90.1 - Energy Standard for Buildings Except Low-Rise Residential Buildings.
B. American Society of Mechanical Engineers:
   1. ASME PTC 25 - Pressure Relief Devices.
   2. ASME Section VIII - Boiler and Pressure Vessel Code - Pressure Vessels.

### 1.3 SUBMITTALS

A. Division 01 and Section 01 33 00 "Submittal Procedures."
B. Product Data: Submit dimensioned Drawings of water heaters indicating components and connections to other equipment and piping. Submit electrical characteristics and connection locations.
C. Manufacturer's Installation Instructions: Submit mounting and support requirements.

### 1.4 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: Submit replacement part numbers and availability.

### 1.5 QUALITY ASSURANCE

A. Water Heater Performance Requirements: Equipment efficiency not less than prescribed by ASHRAE 90.1.
B. Perform Work according to State and local standards.

### 1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' documented experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Accept water heaters on Site in original labeled cartons. Inspect for damage.
B. Protect tanks with temporary inlet and outlet caps. Maintain caps in place until installation.

1.8 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.9 WARRANTY

A. Refer to Division 01 and Section 23 05 00 "General Mechanical Requirements."
B. Furnish 3 year manufacturer warranty for domestic water heaters.

**PART 2 - PRODUCTS**

2.1 ELECTRIC WATER HEATERS

A. Manufacturers:
   1. A. O. Smith Corporation.
   2. State Industries.
   3. Keltech.
   4. Substitutions: Section 23 05 00 "General Mechanical Requirements."
B. Type: Automatic, electric, vertical storage.
C. Tank: Glass lined welded steel, thermally insulated with minimum 1-inch-thick glass fiber; encased in corrosion-resistant steel jacket with baked-on enamel finish.
D. Controls: Automatic water thermostat with temperature range from 120 to 170 degrees F, flanged or screw-in nichrome elements, enclosed controls and electrical junction box.
E. Accessories: Brass water connections and dip tube, drain valve, magnesium anode, and ASME temperature and pressure relief valve.

**PART 3 - EXECUTION**

3.1 INSTALLATION

A. Maintain manufacturer's recommended clearances around and over water heaters.
B. Install water heater on concrete housekeeping pad, minimum 3-1/2 inches high and 6 inches larger than water heater base on each side.
C. Connect domestic hot and cold water piping to supply and return water heater connections.

D. Install the following piping accessories.
   1. On Supply:
      a. Shutoff valve.
   2. On Return:
      a. Thermometer well and thermometer.
      b. Shutoff valve.
E. Install discharge piping from relief valves and drain valves to nearest floor drain.
F. Install water heater trim and accessories furnished loose for field mounting.

G. Install electrical devices furnished loose for field mounting.
H. Install control wiring between water heater control panel and field mounted control devices.
I. Install Work according to State and local standards.

END OF SECTION


PACKET 7.393 September 12, 2023
PACKET 11.395 November 14, 2023

# SECTION 22 40 00 - PLUMBING FIXTURES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Water closets.
   2. Lavatories.
   3. Drains.
B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechanical Requirements."
B. Product Data: Submit catalog illustrations of fixtures, sizes, rough-in dimensions, utility sizes, trim, and finishes.
C. Manufacturer's Installation Instructions: Submit installation methods and procedures.
D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.3 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: Submit fixture, trim, exploded view, and replacement parts lists.

1.4 QUALITY ASSURANCE

A. Perform Work according to State and local standards.
B. Provide products requiring electrical connections listed and classified by Underwirters Laboratory Inc., as suitable for purpose specified and indicated.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' experience.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Accept fixtures on-site in factory packaging. Inspect for damage.
B. Protect installed fixtures from damage by securing areas and by leaving factory packaging in place to protect fixtures and prevent use.

## PART 2 - PRODUCTS

2.1 FIXTURES

A. Refer to Drawings Plumbing Fixture Schedule for fixture make, model numbers, and type.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify walls and floor finishes are prepared and ready for installation of fixtures.
B. Verify electric power is available and of correct characteristics.
C. Confirm millwork is constructed with adequate provision for installation of counter top lavatories and sinks.

3.2 PREPARATION

A. Rough-in fixture piping connections according to minimum sizes indicated in fixture rough-in schedule for particular fixtures.

3.3 INSTALLATION

A. Install Work according to State and local standards.
B. Install each fixture with trap, easily removable for servicing and cleaning.
C. Provide chrome-plated rigid or flexible supplies to fixtures with stops, reducers, and escutcheons.
D. Install components level and plumb.
E. Install and secure fixtures in place with wall supports or carriers and bolts.
F. Seal fixtures to wall and floor surfaces with sealant as specified in Division 07, color to match fixture.

3.4 INTERFACE WITH OTHER PRODUCTS

A. Review millwork Shop Drawings. Confirm location and size of fixtures and openings before rough in and installation.

3.5 ADJUSTING

A. Adjust stops or valves for intended water flow rate to fixtures without splashing, noise, or overflow.

3.6 CLEANING

A. Clean plumbing fixtures and equipment.

END OF SECTION

# SECTION 23 05 00 - GENERAL MECHANICAL REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 DESCRIPTION

A. Work covered by this Division shall consist of furnishing all labor, equipment, supplies, and materials and in performing all operations necessary for the installation of complete and operating mechanical systems as required by these Specifications and/or shown on the Drawings, subject to the terms and conditions of the Contract. The Work shall also include the completion of such mechanical and electrical details not mentioned or shown which are necessary for the successful operation of all systems described on the Drawings or required by these Specifications; this includes the furnishing all materials for the filling the systems to make them operable, including water, refrigerant, oil, and grease. Prove satisfactory operation of all equipment and controls to Engineer on request.

B. Work Not Included: Certain labor, material, and equipment may be furnished and/or installed under other Divisions of these Specifications. This Contractor shall coordinate with other trades and arrange his Work to make the part fit together. The following items are to be accomplished under other Divisions of these Specifications:
   1. Temporary Heat: Refer to paragraph in this Section.
   2. Temporary Water and Toilet: Refer to General Conditions.
   3. Roof Curbs: Refer to paragraph in this Section.
   4. Electrical Equipment and Wiring: Refer to paragraph in this Section.
   5. Concrete: Refer to paragraph in this Section.

C. Equipment Furnished by Owner: Rough-in services pipes to locations as required by Engineerural and Mechanical Drawings and equipment Shop Drawings. Provide service valves on all pipes except waste and vent pipes. Final connection to equipment will be made by this Contractor.

### 1.3 BIDDING

A. All mechanical equipment shall be new unless specified otherwise in the Specifications or on the Drawings.

B. All Bids must be based only on the equipment and materials as scheduled on the Drawings and as specified or on equivalent equipment and materials. Any Contractor who assumes equivalence of products and who bases his Proposal on that assumption does so at his own risk.

C. A listing of approved alternative manufacturers does not mean that all products of a particular alternative manufacturer are acceptable alternative to the scheduled items. All fixtures and devices must still be submitted according to the prescribed procedures. In addition, some items that have an important visual affect, e.g., electric water coolers, may be required to receive Owner's or Engineer's approval also.

1.4 EXISTING UTILITIES

A. The Drawings indicate the locations, type, and sizes of various utilities within the Site where known. These utilities are indicated as accurately as possible. If Contractor encounters any utilities during construction which are not shown on the Drawings, they shall ask for written instructions from Engineer. Any relocation or remodeling required will then be directed by a change order. This Contractor shall assume all responsibility for protection of all utilities, shown or not, and for repair required by this construction.

B. Contractor shall verify location, size, elevation, pressure, and any other pertinent data of the existing utilities. Additional costs incurred due to failure to verify such data and to coordinate associated Work with respective utility providers shall not be Owner's responsibility but shall be borne by Contractor.

C. All costs associated with providing utilities including, but not limited to, connection fees, boring under roads, etc., shall be included in Contractor's proposal price, whether such costs are incurred by Contractor or charged by the utility company.

D. Submission of a proposal by Contractor shall be considered an acknowledgment by Contractor of his compliance with this Section.

1.5 CODES, PERMITS, AND FEES

A. Contractor shall comply with all local, State, and national codes and shall pay for all applicable costs, fees, permits, licenses, and inspections for this Division.

1.6 TEMPORARY HEAT

A. Temporary heat will be furnished by General Contractor. Use of the permanent heating system will not be allowed without written authorization from Engineer and Owner. In case the permanent heating system is used for temporary heat, General Contractor shall pay all the costs until acceptance by Owner. Warranty of equipment shall not start until acceptance by Owner.

1.7 DRAWINGS

A. Contract Drawings are diagrammatic only and are not intended to be scaled for dimensions. All dimensions shall be taken from Engineerural Drawings, certified equipment Drawings, and from the structure itself before fabricating and Work. All space requirements and equipment locations shall be verified, coordinated with other trades, as it is the various Contractors' responsibility to install the systems complete in the space provided without extra charges to Owner.

B. It is intended that anything, whether labor and materials, which is usually furnished as part of any equipment specified and which is necessary for operation shall be furnished as part of the Contract without additional cost, whether or not shown or described.

C. All piping in finished areas of the building shall be concealed except where otherwise noted on the Drawings.

D. All equipment shall be installed in accordance with manufacturer's recommendations, unless approval is given in writing by Engineer for deviation.

1.8 REQUIREMENTS OF REGULATORY AGENCIES

A. The mechanical Work shall be performed in strict accordance with the local and State codes, ordinances, and regulations governing the particular Work involved. Furnish, without extra charge, any additional material and labor when and where required to comply with these Rules and Regulations, though the Work is not mentioned in the Specifications or shown on the Drawings. When the Specifications or Drawings call for or describe materials or construction of a better quality or larger sizes than required by the above mentioned Rules and Regulations, the provisions of these Specifications and accompanying Drawings shall take precedence.

1.9 QUALIFICATIONS

A. All mechanics shall be capable journeymen, skilled in the Work assigned to them with licensing required by the inspecting authority. All welders must have been certified within the past 3 years to perform the Work which they are doing.

1.10 WARRANTY

A. All materials and equipment shall be new unless otherwise specified.
B. Guarantee all workmanship, material and equipment and replace any found defective without cost to Owner, for 1 year after final acceptance, as defined in General Conditions.
C. Each warranty for longer than 1 year as described above (that comes with equipment used on the job) shall be passed into Owner in the Operation and Maintenance Manual, along with the dates of start and end of warranty.
D. Refer to General Conditions for additional information regarding specific warranty requirements.

1.11 PROJECT RECORD DOCUMENTS

A. Before final payment, provide Engineer with one clean set of Drawings and Specifications corrected up-to-date as job progress. These documents shall reflect the As-Built conditions. Refer to General Conditions for additional information.

1.12 SUBMITTALS

A. The intent of this Section is to give general submittal information; refer to specific submittal information in the subsequent Mechanical Sections.
B. Sale of Electronic CADD Files:
   1. Refer to Engineerural Specification Section 01 33 00 "Submittal Procedures" OR call the Parkhill, office issuing this Project and request the pricing for electronic files.
C. Within 30 days after award of the Contract, and before orders are placed, Contractor shall submit specific information on list of equipment and principal materials specified. Contractor shall indicate and/or provide names of manufacturers, catalog and model numbers, cut sheets, and such other supplementary information as necessary for evaluation. Submittal shall be electronic using pdf file extension.

D. Requirements for Each Submittal:
   1. Bear a dated stamp or specific written indication that Contractor has reviewed and approved all submittal prior to submission to Engineer.
   2. Have all information deleted by Contractor that pertains to the means and methods of construction or to fabrication by Contractor that pertains to the means and methods of construction or to fabrication, assembly, installation, or erection (approval by Engineer shall not extend to these areas unless specifically noted by Engineer).
   3. Be clearly and SPECIFICALLY marked as to which specific piece of equipment is being submitted, bye use of a permanent marker, stamp, etc., so as to distinguish it from other pieces of equipment that may occur on the same page.
   4. Be clearly marked as to which available options are being submitted that are associated with a piece of equipment.
   5. Be complete with respect to quantities, dimensions, specific performance, materials, and similar data to enable the Engineer to review the proposed equipment.

E. Omission by Contractor of any of the above requirements or submittals will subject submittal to automatic rejection without review.

F. Any submittals received by Engineer that were not requested shall be returned without review of any kind.

G. Installation Instructions: For certain products or systems as identified in subsequent Specifications Sections or on the Drawings, Contractor shall be required to provide copies of manufacturer's installation instructions with the submittal. When required as such, the installation instructions are considered part of the submittal and their omission may result in automatic rejection of the submittal. Where more than one identical device is scheduled, only one set of installation instructions needs to be submitted; e.g., if seven 5-ton split systems air conditions are scheduled, only one 5-ton unit installation instruction needs to be submitted. Similarly, if one set of installation instructions is identified by the manufacturer and on the instructions to be applicable to more than 1 type or size of devices, e.g., if one set of air conditioner instructions is good for 3-, 4-, 5-ton units, then only one instruction set is required for these devices.

## 1.13 SUBSTITUTED PRODUCTS

A. Material or equipment specified by manufacturer's name is being used as a basis of standard, unless otherwise noted. Engineer will be the sole judge on the equivalence of substituted equipment and materials.

B. It shall be Contractor's responsibility to verify that submitted substitute equipment will fit in space available. Contractor's submittal for acceptance of the substitute shall include a written statement of whether or not such acceptance would require any subsequent or associated changes to the Drawings or Specifications. Any such changes shall be described in writing, briefly but complete.

C. Contractor shall be responsible for the costs of any such modifications due to substitution of materials or equipment for that which was specified or scheduled. The cost shall be complete; that is, it shall include the cost effect of any and all other trades.

D. Engineer may request detailed Shop Drawing or plan layouts of mechanical rooms or systems of the substituted equipment.

1.14 SAFETY

A. General: Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work, and Contractor shall comply with all laws governing safety, specifically the "Occupational Safety and Health Standards" and the "Safety and Health Regulations for Construction," state and federal.

B. According to OSHA, a hazardous chemical is any chemical which is a physical hazard or a health hazard. This may include items such as paints, solvents, adhesives, sealants, cleaners, etc. If a Contractor produces, uses, or stores hazardous chemicals at the workplace, then Contractor shall develop, implement, and maintain a hazard communication program in compliance with the latest OSHA requirements. In Projects with multiple tenants in which the building is partially occupied during all or part of the Project, Contractor shall inform the Building Manager or Owner, according to OSHA guidelines, of any hazardous chemicals being produced, stored, or used in the building so that other tenants may be notified. Contractor shall employ required methods of training, information, handling, ventilation, labeling, storing, disposal, and removal of hazardous chemicals.

1.15 LABELING

A. Each device for which an independent testing authority has established a standard shall have affixed a label indicating its compliance and listing. Refer to General Conditions for list of such independent testing authorities.

1.16 SITE VISIT REPORTS

A. During the course of the job, Engineer will make Site visits to observe Work in progress and will subsequently prepare a written Site visit report, which will be sent to Contractor and to whomever else Engineer desires. Contractor shall prepare a written and typed response within 7 calendar days of his receiving the Site visit report. General Contractor shall include in his response the following information.
   1. Date of Site visit by Engineer.
   2. Date of receipt of the Site visit report.
   3. Name and title of the preparer of the response.
   4. An item number referenced to the Site report.
   5. A brief three- or four-word description of the item.
   6. Contractor or Subcontractor affected.
   7. The proposed course of action.
   8. An expected time of completion of the action.

1.17 CUTTING AND PATCHING

A. No joists, beams, girders, columns, slabs, or other structural elements shall be cut, drilled, or altered in any way by Contractor without first obtaining written permission and instructions from Engineer.

B. Where it is necessary to cut through any non-structural elements of walls, floors, or ceilings to permit the installation of any Work under this Contract, or to repair any defects that may appear up to the expiration of the guarantee, such cutting shall be done by Contractor with as little damage as reasonably possible to the element being cut or to adjacent elements.

C. After the necessary Work has been completed, the damage shall be repaired by the respective Contractor, who shall pay all costs of such cutting, repairs, and patching. All patching or sealing of cuts, penetrations, etc., including final appearance of same, shall be done to the approval of Engineer.

## PART 2 - PRODUCTS

2.1 MATERIALS

A. All materials shall be new and of specified quality, unless specifically noted otherwise. Materials shall be free from defects. Where manufacturer names are mentioned in the Specifications or on the Drawings, it has been done in order to establish a standard of quality and construction.

B. Contractor will be responsible for transportation of his material to and from the job Site and will be responsible for the storage and protection of his materials and Work until the final acceptance of the job. At the end of each day of Work, each Contractor is responsible for covering or protecting his Work and/or materials that may be susceptible to damage even if such damage is the result of unforeseen causes, e.g., an overnight thunderstorm. Failure to do so will be sufficient cause for rejection of any item in question, and any such item shall be replaced by Contractor at no cost to Owner.

C. Contractor shall verify that all pieces of equipment will fit through available openings in the building and that all equipment can be installed without modification of building structure.

2.2 EQUIPMENT SCHEDULE

A. All equipment major items are specified in the equipment schedules on the Drawings and shall be new and furnished complete with all accessories normally supplied with the catalog item listed and all other accessories necessary for a complete and satisfactory installation.

B. Equipment items so noted will require start-up by factory trained personnel. Equipment items so noted will require factory approved service personnel who shall provide all service, including all parts and all labor, as requested by Owner, during the full period of equipment warranty.

2.3 EQUIPMENT RATINGS

A. Equipment capacities as scheduled on the Drawings are at Project Site altitude. Capacities of submitted equipment must be corrected for Project Site altitude unless otherwise noted.

2.4 WORKMANSHIP

A. The workmanship shall, in all respects, be of the highest grade, and all construction shall be done according to the best practices of the trade. Piping, ducting and conduit shall be concealed unless otherwise noted, and installed square to the building lines. Any Work not meeting this requirement shall be replaced or rebuilt without extra expense to Owner.

## 2.5 V-BELT DRIVES

A. V-belt drives shall be of fabric and rubber construction of approved manufacture. Multiple belts shall be matched and all belts shall be adjusted to drive the apparatus properly and to prevent slippage and undue wear in starting motor nameplate rating.

## 2.6 BELTGUARDS

A. Contractor shall provide for each V-belt drive a painted steel belt guard, which shall be constructed around an angle iron frame, securely bolted to the floor or apparatus. The guard shall completely enclose drives and pulleys and be constructed to comply with all safety requirements. Hinged access doors not less than 6- by 6-inch shall be provided for access to motors and fan shaft for test purposes.

## 2.7 ELECTRICAL WIRING AND CONTROL EQUIPMENT

A. All disconnects, motor starters, relays, wiring, etc. shall comply with all requirements of Section 26 05 00 "Basic Electrical Methods" of the electrical Specifications.

B. Mechanical Contractor must refer to the electrical control equipment and wiring shown on the Electrical Drawings. Any changes or additions required by specified or substituted equipment furnished shall be the complete responsibility of Contractor furnishing the equipment.

C. All electrical equipment characteristics (voltage, etc.) must be VERIFIED by Mechanical Contractor prior to ordering. It is imperative that voltage and phase characteristics are checked with the Electrical Drawings.

D. All motors shall be built in accordance with the current applicable IEEE, ASA, and NEMA standards. All general-purpose motors shall be open drip-proof machines for installation indoors and/or in protected locations. Totally enclosed fan cooled (TEFC) motors shall be used in all areas of exposure to weather or other environmental contamination. Motors shall be rated explosion-proof when located in hazardous atmospheres. Type II weather-protected motors may be used in lieu of TEFC motors on roof fan units and similar equipment. Motors mounted in direct sun shall be provided with a shield to for direct radiation from the sun when the sun is 45 degrees F or greater above the horizon.

E. Unless indicated otherwise, motors shall be NEMA design B with a service factor of 1.15 with 40 degrees C rise and total temperature rise of 65 degrees C ambient and when powered from the system voltage feeding the motor. TEFC motors shall have a service factor of 1.00 with total temperature rise of 65 degrees C in the above conditions. Single-phase motors shall be NEMA Type N split-phase induction motors with built-in thermal protectors. Single-phase motors connected on loads requiring high starting torque shall be capacitor-start induction motors.

F. All motors shall be all copper wound, high power factor, high efficiency motors. Electric motors shall be an energy efficient type as defined in the latest edition of NEMA document number MG1. Motor efficiency shall be made available to Engineer as required.

G. If there is not a separate "Controls Contractor" for this Project, Mechanical Contractor is responsible for providing and installing all control wiring. Wiring and conduit is to be provided and installed as directed under Division 26 Specifications.

## 2.8 EQUIPMENT AND PIPING SUPPORTS

A. All supporting systems for piping, equipment, and materials supported by the building structure shall be submitted to the Engineer for approval prior to purchase and installation.

B. Roof Supports:

1. Manufacturer's installation recommendations vary depending on roof types, but Contractor is responsible for verifying the roof type and adhering strictly to the appropriate set of manufacturer's installation instructions.

## 2.9 ROOF PENETRATIONS

A. Piping:

1. Penetration shall be accomplished with factory-made assemblies designed specifically for the purpose. The use of pitch pans or pitch pockets is not allowed. Contractor shall provide a factory-made penetration assembly as follows:

a. For pipes, conduits, etc., up to 3 inches in diameter that can or are intended to be turned to horizontal after passing through the roof (e.g., small electrical conduit, gas piping, refrigerant lines, water pipes, etc.) the device shall consist of a curb assembly with a welded 18 gauge galvanized steel shell and base, 1-1/2 inches thick 3 pounds per cubic foot rigid insulation, 0.50-inch aluminum or 20 gauge galvanized cap with minimum 3-inch over hang and 1-inch rigid insulation, and 2- x 6-inch wood nailer. Product shall be Custom Curb Model CPC, ThyCurb Model RP-2 with TC-1, 2, or 3 curb, or approved equivalent.

B. Ductwork with Equipment:

1. Each pierce of roof mounted equipment such as exhaust or supply fans, relief or intake hoods, packaged rooftop air conditioners, air handlers, etc., shall be provide and installed with an insulated roof curb designed to mate with the equipment and provide a weatherproof enclosure. In the event that a presinsulated curb is not available, an uninsulated curb is acceptable if Contractor provides and installs field insulation per manufacturer's instructions. Contractor shall provide the roof curb(s) to Roofing Contractor for installation.

C. General:

1. All roof flashing assemblies and roof curbs shall be closely coordinated with other Work through Roofing Contractor to ensure that the flashing, canting, insulation type and location, etc., is correct and appropriate for the particular roof construction type.
2. Each roof curb shall be selected and provided so that the top of the curb shall be level after installation. Provide tapered curb as required to match roof slope. The curb shall provide a minimum clearance of 10 inches between the top of the finished roof surface and the top of the wood nailer, continuous around the curb perimeter.
3. Each roof penetration location shown on the Drawings is approximate. Refer to the Engineerural and Structural Drawings for the structural openings. Refer to "Cutting and Patching" paragraph in this Section of this Specification for more information.
4. Provide each roof curb with other options as scheduled on the Drawings.

2.10 ACCESSIBILITY

A. Access Panels:
   1. Access panels shall be provided wherever necessary for possible future replacement, adjustment, or maintenance of operating devices such as machinery, valves, dampers, switches, relays, etc., or to other critical non-operating devices such as pull boxes, inspection parts, gauges, etc. Such access panels shall be provided and install by Contractor, whether or not shown on the Drawings, and shall be brought to the attention of Engineer for approval of type, color, etc. Where access is provided in rated members, the access panels shall be of a type that maintains the integrity of the member penetrated.

B. Access to Equipment:
   1. All pipes, tubing, conduit, etc., including but not limited to draining piping of any type, electrical conduit, wiring not in conduit, and pneumatic control tubing shall be installed in such a way so as not to prevent and/or not to make necessary difficult the removal, operation, use, or maintenance of equipment, access panels or doors, pathways (especially in attics or crawlspaces), observation ports, measurement, balancing devices, or junction boxes.
   2. If access for these purposes is prevented or made unreasonably difficult in the opinion of Engineer, then Contractor shall make modifications or repairs at no cost to anyone except Contractor. Such modifications or repairs shall be considered neither complete nor adequate until Engineer is satisfied that access for the above purpose is achieved.

2.11 PROTECTION OF PENETRATION

A. All penetrations of fire or smoke barriers shall be sealed, sleeves (if any), insulation (if any), and vibration isolation (if any) that maintain the fire or smoke resistance of the barrier in accordance with the latest edition of NFPA 101 Life Safety Code.
B. Contractor shall verify locations and type of all partitions penetrations from the Drawings. Sealing material and methods shall be per UL recommendations.

2.12 BEDDING COURSE

A. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve.

**PART 3 - EXECUTION**

3.1 STORAGE

A. Provide for proper storage of all materials and equipment and assume responsibility for losses due to any cause. All storage shall be within the contract limits of the building Site or in a bonded warehouse. All equipment and materials must be covered and stored out of the elements; any item, which has become rusted, will not be permitted to be used.

B. Each Contractor shall provide temporary storage facilities suitable for equipment stored at the Job Site. Storage facilities shall be rainproof and lockable as required. Materials or equipment stored on Site but not in a lockable rainproof storage facility shall be stored above ground or above slab. Contractor shall take necessary precautions to prevent entry of and/or damage from dirt, trash, water, or vermin. Equipment not properly stored and protected shall be, at the discretion of Engineer, replaces at no cost to Owner. Roofs are not acceptable storage areas unless specifically allowed in writing by Engineer.

3.2 INSTALLATION AND ARRANGEMENT

A. Install all Work to permit removal (without damage to other parts) of coils, heat exchanger bundles, boiler tubes, fan shafts and wheels, filters, belt guards, sheaves and drives, and all other parts which might require periodic replacement or maintenance. Arrange pipes, ducts, and equipment to permit ready access to valves, traps, starters, motors, control components, and to clear opens of doors and of access panels.

B. Offsets, transitions, and changes in direction in pipes and ducts shall be made as required to maintain proper head room and pitch of sloping pipes whether or not indicated on the Drawings. Furnish and install all traps, air vents, sanitary vents, etc., as required to affect these offsets, transitions, and changes in direction.

C. Duct transitions and offsets required to connect ductwork to equipment shall be made as required whether or not indicated on the Drawings.

3.3 PROTECTION OF WORK AND PROPERTY

A. Where there are existing facilities, be responsible for protection thereof, whether or not such facility is to be removed or relocated or remain as installed. Moving or removing any facility must be done so as not to cause interruption to the Work or Owner's Operation.

B. All pipe and duct openings shall be closed with caps or plugs during installation. All fixtures shall be covered and protected against injury. At final completion, all Work shall be cleaned and delivered in an unblemished condition or refinished and repainted at the discretion of Engineer.

3.4 CONCEALED AND EXPOSED WORK

A. "Concealed" is intended to mean within such spaces as pipe chases, pipe trenches, above plaster ceilings, in walls and buried pipe is inaccessible when building is completed. "Exposed" is intended to be within equipment rooms, unfinished spaces, above "pushup" ceilings, accessible pipe tunnels, etc., where pipe is accessible.

3.5 CONCRETE

A. Mechanical Contractor shall coordinate all requirements for concrete. All concrete shall be furnished under the Engineer Divisions of these Specifications.

3.6 FIELD MEASUREMENTS

A. Contractor shall verify the dimensions and conditions governing Work at the Project Site. He shall examine adjoining Work on which his Work is dependent, for perfect efficiency, and shall report any Work which must be corrected.


PACKET 7.406 September 12, 2023
PACKET 11.408 November 14, 2023

3.7 LUBRICATION

A. Contractor shall provide all oil and grease for the operating of all equipment until acceptance. Contractor shall be held responsible for all damage to bearings while the equipment is being operated by him up to the date of acceptance of the equipment. Contractor shall protect all bearings and shafts during installation and shall thoroughly grease the steel shafts to prevent corrosion.

3.8 MANUFACTURER'S DIRECTION

A. Contractor shall install all equipment in strict accordance with all directions and recommendations furnished by the manufacturer. Where such directions conflict with the Plans and Specifications, Contractor shall report such conflicts to Engineer, who shall make changes deemed necessary and desirable.

3.9 FLUSHING, CLEANING, AND STERILIZING

A. Before final connections are made in the piping systems, all piping shall be blown out with air and then completely washed out with cleaning compounds. The systems shall be flushed for complete removal of all foreign materials. Furnish all temporary connections, valves, etc., required for this purpose.
B. After flushing, sterilize the domestic water systems with an approved chlorinating agent to provide a dosage on not less than 50 ppm. After minimum contact period of 8 hours, the system shall be flushed with clean water until the residual chlorine is no greater than the city water.

3.10 TESTS

A. Test all, storm, vent, and waste lines with either a 5 psi air test or a standing water test of 12 feet of head pressure. Test shall be held for a minimum of 2 hours, or as required by local code.
B. Test all new domestic cold, hot, and recirculating hot water service lines at 50 psig above operating pressure, without exceedidng the pressure rating of the piping materials. Test shall be held for a minimum of 2 hours, or as required by local code.
C. Test all new gas lines at 1-1/2 times the proposed maximum working pressure, but not less than 5 psig. Test to be held for a minimum of 2 hours, or as required by local code.
D. Repair leaks and defects with new materials and retest piping or portion thereof until satisfactory results are obtained.
E. All tests shall be witnessed and approved by Engineer and the local authority having jurisdiction before covering or insulating. The satisfactory operation of blowers, pumps and other equipment with moving parts shall be demonstrated to Engineer. Equipment without movable parts shall have pressure or other tests performed by Contractor to demonstrate satisfactory operation.
F. Furnish all instruments, pumps, blowers, and equipment required for the testing.
G. Provide written copies of these test reports for inclusion on the Operations and Maintenance Manuals and submit one copy to Engineer.


PACKET 7.407 September 12, 2023
PACKET 11.409 November 14, 2023

3.11 PAINTING

A. Surfaces of all equipment and material not provided with a factory finish coat shall be thoroughly cleaned, primed (if not factory primed) and finish coated with a high quality alkyd industrial enamel of a color chosen by Owner.

3.12 SPECIAL OPENINGS

A. Contractor shall attempt to schedule delivery of all large equipment requiring special openings for installation prior to enclosing of area. Where this is not possible written notice of required openings which must be provided shall be listed by size and location and submitted to General Contractor prior to enclosing of areas involved. Work required to construct openings and the associated cost of enclosing them shall be done at no additional cost to Owner.

3.13 PLACING IN OPERATION

A. All ducts, pipes, equipment, controls, etc., shall be cleaned of plaster and other foreign debris
B. Before final acceptance, all strainers shall be thoroughly cleaned or replaced, all bearings shall be oiled or greased and all drains shall be cleaned out and primed. All permanent filters shall be cleaned; throwaway type filters shall be replaced with new filters.
C. The systems shall be placed in operation.
D. Contractor shall verify that all controls are set to meet operating conditions specified.
   1. Example: Boiler operating control set at 180 degrees F. Limit control set at 200 degrees F.
E. Contractor shall verify that all pieces of equipment are operable and that all sequence of controls are being met.
F. Contractor to adjust seating through the first year as required by Engineer.

3.14 BALANCING, TESTING, AND ADJUSTING THE MECHANICAL SYSTEMS

A. Contractor shall include in their proposal the cost of testing, adjusting, and balancing (TAB). Mechanical Contractor shall provide a TAB report that shows the corrected airflow or coordinate with TAB Contractor to balance the system and correct deficiences noted by the TAB Contractor during TAB testing.

3.15 OPERATION AND MAINTENANCE INSTRUCTIONS

A. Contractor shall prepare and provide electronic copies of operating and maintenance manuals. Contractor shall deliver the electronic sets to Engineer for approval. Each manual shall be in a ring binder and shall be indexed with dividers for each Section. Delivery of required documents is a condition of final acceptance.
B. Each manual shall contain, but not limited to, the following general sections:
   1. Certificates of acceptance from the inspecting authorities.
   2. Waiver of all liens.
   3. Warranties with starting dates and end dates for each pieces of equipment and/or for each system (warranties shall begin on date of substantial completion and acceptance by Owner).

4. Names, telephone, and fax numbers and addresses of all subcontractors, vendors, manufacturer's representatives, and warranties providers.
5. Certification letters from each Contractor that each system furnished and installed by that Contractor and/or subcontractors is started-up, balanced, adjusted, and checked for proper operation in accordance with the intent of the Contract Documents.
6. Spare parts lists for each piece of equipment.
7. Lubrication charts showing type of lubrication and application methods and frequencies.
8. Filter cleaning or replacement schedule (on Contractor's letterhead stationary).
9. Preventative maintenance schedule for checking all items such as belt drives, safety controls, oil and refrigerant charges, and seasonal changer over recommendations. Cleaning of all strainers, traps, coils, tower pans, tubes, sprays, etc. (on Contractor's letterhead stationary).
10. Normal operating instructions including a sequence of operations (on Contractor's letterhead stationary).
11. Instructions as to procedures to be followed for emergency situations, such as alarms or safety items being tripped (on Contractor's letterhead stationary).
12. Instruction on who to call for service during guarantee period (on Contractor's letterhead stationary).
13. Copies of As-Built Drawings on reproducible vellum as produced by a Xerox or photographic process.
14. Copies of all approved Shop Drawing Submittals including nameplate date, design parameters, name, telephone and fax numbers, address of vendor, manufacturer's representative and warrantee provider.

C. Approval will not be given for final payment until the tests, balancing, and operating instruction portions have been completed.

## 3.16 INSTRUCTIONS TO OWNER

A. Contractor shall instruct Owner's operating personnel in the operations and maintenance of all mechanical systems and equipment. There shall be a minimum of 2 hours of training. Contractor shall furnish any special servicing tools required for maintenance.

B. Contractor shall conduct a demonstration of the installation upon completion and final acceptance of the Work. There shall be a minimum 2-hour demonstration. Prior to this, all Work shall have been completed, tested, balanced, and placed in operation. Qualified personnel must be present at the demonstration to operate all the systems and prove the performance of the equipment. The schedule for this demonstration shall be coordinated with Engineer.

## 3.17 EXCAVATION FOR PIPE AND CONDUIT

A. Excavate trenches to indicated gradients, lines, depths, and elevations.

B. Excavate trenches to uniform widths to provide a working clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit, unless otherwise indicated.

C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade. Level bottom of all trenches and cover all PVC pipe with processed chat.

1. For pipes and conduit less than 6 inches in nominal diameter and flat-bottomed, multiple-duct conduit units, hand excavate trench bottoms and support pipe and conduit on an undisturbed subgrade.
2. For pipes and conduit 6 inches or larger in nominal diameter, shape bottom of trench to support bottom 90 degrees of pipe circumference. Fill depressions with tamped sand backfill.
3. Excavate trenches 4 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

D. Place backfill and fill materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.

E. All piping and conduit trenches across pavement shall be backfilled with two-sack concrete to within 12 inches of finished grade.

F. Compact soil to not less than the following percentages of maximum dry unit weight according to ASTM D698:
1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill material at 95 percent.
2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill material at 92 percent.
3. Under lawn or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill material at 85 percent.

G. Install detectable warning tape above conduits and pipe, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

H. Protection:
1. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
2. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
   a. Scarify or remove and replace soil material to depth as directed by Engineer; reshape and recompact.
3. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
   a. Restore appearance, quality, and condition of finished surfacing to match adjacent Work, and eliminate evidence of restoration to the greatest extent possible.

I. Disposal of Surplus and Waste Materials:
1. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property unless otherwise directed by Owner.
2. Repair: Any damage to shrubs, grass or structures shall be repaired to previous condition by Contractor at no additional expense to Owner.

J. Bracing and Sheeting: Open cut trenches shall be sheeted and braced as required by OSHA and the requirements of the State of Texas as necessary for the safety of workers or the protection of property.

END OF SECTION


PACKET 7.410 September 12, 2023
PACKET 11.412 November 14, 2023

# SECTION 23 05 00.20 - BASIC MECHANICAL MATERIALS AND METHODS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. The following basic mechanical materials and methods to complement other Division 23 Sections.
      a. Piping materials and installation instructions common to most piping systems.
      b. Concrete equipment base construction requirements.
      c. Equipment nameplate data requirements.
      d. Labeling and identifying mechanical systems and equipment is specified in Section 23 05 53 "Identification for HVAC and Plumbing Piping and Equipment."
      e. Nonshrink grout for equipment installations.
      f. Field-fabricated metal and wood equipment supports.
      g. Installation requirements common to equipment specification Sections.
      h. Cutting and patching.
      i. Touch-up painting and finishing.
   2. Pipe and pipe fitting materials are specified in piping system Sections.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 DEFINITIONS

A. Pipe, pipe fittings, and piping include tube, tube fittings, and tubing.

B. Finished Spaces: Spaces other than mechanical and electrical equipment rooms, furred spaces, pipe and duct shafts, unheated spaces immediately below the roof, spaces above ceilings, unexcavated spaces, crawl spaces, and tunnels.

C. Exposed Interior Installations: Exposed to view indoors. Examples include finished occupied spaces and mechanical equipment rooms.

D. Exposed Exterior Installations: Exposed to view outdoors, or subject to outdoor ambient temperatures and weather conditions. Examples include rooftop locations.

E. Concealed Interior Installations: Concealed from view and protected from physical contact by building occupants. Examples include above ceilings and in duct shafts.

F. Concealed Exterior Installations: Concealed from view and protected from weather conditions and physical contact by building occupants, but subject to outdoor ambient temperatures. Examples include installations within unheated shelters.

### 1.3 SUBMITTALS

A. General: Submit the following according to the Conditions of the Contract and Division 01 and Section 23 05 00 "General Mechanical Requirements."

B. Product data for following piping specialties:
   1. Mechanical sleeve seals.
   2. Dielectric Fittings.
   3. Access Doors.

1.4 QUALITY ASSURANCE

A. Qualify welding processes and operators for piping according to ASME "Boiler and Pressure Vessel Code," Section IX, "Welding and Brazing Qualifications."
   1. Comply with provisions of ASME B31 Series "Code for Pressure Piping."
   2. Certify that each welder has passed AWS qualification tests for the welding processes involved and that certification is current.

B. ASME A13.1 for lettering size, length of color field, colors, and viewing angles of identification devices.

C. Equipment Selection: Equipment of greater or larger power, dimensions, capacities, and ratings may be furnished provided such proposed equipment is approved in writing and connecting mechanical and electrical services, circuit breakers, conduit, motors, bases, and equipment spaces are increased. No additional costs will be approved for these increases, if larger equipment is approved. If minimum energy ratings or efficiencies of the equipment are specified, the equipment must meet the design requirements and commissioning requirements.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver pipes and tubes with factory-applied end-caps. Maintain end-caps through shipping, storage, and handling to prevent pipe-end damage and prevent entrance of dirt, debris, and moisture.

B. Protect stored pipes and tubes from moisture and dirt. Elevate above grade. When stored inside, do not exceed structural capacity of the floor.

C. Protect flanges, fittings, and piping specialties from moisture and dirt.

D. Protect stored plastic pipes from direct sunlight. Support to prevent sagging and bending.

1.6 SEQUENCING AND SCHEDULING

A. Coordinate mechanical equipment installation with other building components.

B. Arrange for chases, slots, and openings in building structure during progress of construction to allow for mechanical installations.

C. Coordinate the installation of required supporting devices and set sleeves in poured-in-place concrete and other structural components as they are constructed.

D. Sequence, coordinate, and integrate installations of mechanical materials and equipment for efficient flow of the Work. Coordinate installation of large equipment requiring positioning prior to closing in the building.

E. Coordinate connection of electrical services.

F. Coordinate connection of mechanical systems with exterior underground and overhead utilities and services. Comply with requirements of governing regulations, franchised service companies, and controlling agencies.

G. Coordinate requirements for access panels and doors where mechanical items requiring access are concealed behind finished surfaces.

H. Coordinate installation of identifying devices after completing covering and painting where devices are applied to surfaces. Install identifying devices prior to installing acoustical ceilings and similar concealment.

## PART 2 - PRODUCTS

2.1 PIPE AND PIPE FITTINGS

A. Refer to individual piping system specification Sections for pipe and fitting materials and joining methods.
B. Pipe Threads: ASME B1.20.1 for factory-threaded pipe and pipe fittings.

2.2 JOINING MATERIALS

A. Refer to individual piping system Specification Sections in Division 23 for special joining materials not listed below.
B. Pipe Flange Gasket Materials: Suitable for the chemical and thermal conditions of the piping system contents.
   1. ASME B16.21, nonmetallic, flat, asbestos-free, 1/8-inch maximum thickness, except where thickness or specific material is indicated.
      a. Full-Face Type: For flat-face, Class 125 cast-iron and cast-bronze flanges.
      b. Narrow-Face Type: For raised-face, Class 250 cast iron and steel flanges.
   2. ASME B16.20 for grooved, ring-joint, steel flanges.
   3. AWWA C110, rubber, flat face, 1/8-inch-thick, except where other thickness is indicated; and full-face or ring type, except where type is indicated.
C. Flange Bolts and Nuts: ASME B18.2.1, carbon steel, except where other material is indicated.
D. Plastic Pipe Flange Gasket, Bolts, and Nuts: Type and material recommended by piping system manufacturer, except where other type or material is indicated.
E. Solder Filler Metal: ASTM B32.
   1. Alloy Sn95 or Alloy Sn94: Tin (approximately 95 percent) and silver (approximately 5 percent), having 0.10 percent lead content.
F. Brazing Filler Metals: AWS A5.8.
   1. BCuP Series: Copper-phosphorus alloys.
   2. BAg1: Silver alloy.
G. Welding Filler Metals: Comply with AWS D10.12 for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.
H. Solvent Cements: Manufacturer's standard solvents complying with the following:
   1. Acrylonitrile-Butadiene-Styrene (ABS): ASTM D2235.
   2. Chlorinated Poly (Vinyl Chloride) (CPVC): ASTM F493.
   3. Poly (Vinyl Chloride) (PVC): ASTM D2564.
   4. PVC to ABS Transition: Made to requirements of ASTM D3138, color other than orange.
I. Plastic Pipe Seals: ASTM F477, elastomeric gasket.
J. Flanged, Ductile-Iron Pipe Gasket, Bolts, and Nuts: AWWA C110, rubber gasket, carbon steel bolts and nuts.
K. Couplings: Iron body sleeve assembly, fabricated to match outside diameters of plain-end pressure pipes.
   1. Sleeve: ASTM A126, Class B, gray iron.
   2. Followers: ASTM A47, Grade 32510 or ASTM A536 ductile iron.
   3. Gaskets: Rubber.
   4. Bolts and Nuts: AWWA C111.
   5. Finish: Enamel paint.

2.3 PIPING SPECIALTIES

A. Escutcheons: Manufactured wall, ceiling, and floor plates; deep-pattern type where required to conceal protruding fittings and sleeves.
   1. Inside Diameter: Closely fit around pipe, tube, and insulation.
   2. Outside Diameter: Completely cover opening.
   3. Cast Brass: One-piece, with setscrew.
      a. Finish: Rough brass.
      b. Finish: Polished chrome plate.
   4. Cast Brass: Split casting, with concealed hinge and setscrew.
      a. Finish: Rough brass.
      b. Finish: Polished chrome plate.
   5. Stamped Steel: One-piece, with setscrew and chrome-plated finish.
   6. Stamped Steel: One-piece, with spring clips and chrome-plated finish.
   7. Stamped Steel: Split plate, with concealed hinge, setscrew, and chrome-plated finish.
   8. Stamped Steel: Split plate, with concealed hinge, spring clips, and chrome-plated finish.
   9. Stamped Steel: Split plate, with exposed-rivet hinge, setscrew, and chrome-plated finish.
   10. Stamped Steel: Split plate, with exposed-rivet hinge, spring clips, and chrome-plated finish.
   11. Cast-Iron Floor Plate: One-piece casting.

B. Dielectric Fittings: Assembly or fitting having insulating material isolating joined dissimilar metals to prevent galvanic action and stop corrosion.
   1. Description: Combination of copper alloy and ferrous; threaded, solder, plain, and weld neck end types and matching piping system materials.
   2. Insulating Material: Suitable for system fluid, pressure, and temperature.
   3. Dielectric Unions: Factory-fabricated, union assembly for 250-psig minimum working pressure at a 180 degrees F temperature.
   4. Dielectric Flanges: Factory-fabricated, companion-flange assembly for 150- or 300-psig minimum pressure to suit system pressures.
   5. Dielectric-Flange Insulation Kits: Field-assembled, companion-flange assembly, full-face or ring type. Components include neoprene or phenolic gasket, phenolic or polyethylene bolt sleeves, phenolic washers, and steel backing washers.
      a. Provide separate companion flanges and steel bolts and nuts for 150- or 300-psig minimum working pressure to suit system pressures.
   6. Dielectric Couplings: Galvanized-steel coupling, having inert and noncorrosive, thermoplastic lining, with threaded ends and 300-psig minimum working pressure at 225 degrees F temperature.
   7. Dielectric Nipples: Electroplated steel nipple, having inert and noncorrosive thermoplastic lining, with combination of plain, threaded, or grooved end types and 300-psig working pressure at 225 degrees F temperature.

C. Mechanical Sleeve Seals: Modular, watertight mechanical type. Components include interlocking synthetic rubber links shaped to continuously fill annular space between pipe and sleeve. Connecting bolts and pressure plates cause rubber-sealing elements to expand when tightened.

D. Sleeves: The following materials are for wall, floor, slab, and roof penetrations:
   1. Steel Sheet Metal: 24-gauge or heavier galvanized sheet metal, round tube closed with welded longitudinal joint.
   2. Steel Pipe: ASTM A53, Type E, Grade A, Schedule 40, galvanized, plain ends.
   3. Cast-Iron: Cast or fabricated wall pipe equivalent to ductile-iron pressure pipe, having plain ends and integral water stop, except where other features are specified.
   4. Wall Penetration Systems: Wall sleeve assembly, consisting of housing, gaskets, and pipe sleeve, with 1 mechanical-joint end conforming to AWWA C110 and one plain pipe-sleeve end.
      a. Penetrating Pipe Deflection: 5 percent without leakage.
      b. Housing: Ductile-iron casting having waterstop and anchor ring, with ductile-iron gland, steel studs and nuts, and rubber gasket conforming to AWWA C111, of housing and gasket size as required to fit penetrating pipe.
      c. Pipe Sleeve: AWWA C151, ductile-iron pipe.
      d. Housing-to-Sleeve Gasket: Rubber or neoprene push-on type of manufacturer's design.
   5. Cast-Iron Sleeve Fittings: Commercially made sleeve having an integral clamping flange, with clamping ring, bolts, and nuts for membrane flashing.
      a. Underdeck Clamp: Clamping ring with setscrews.

2.4 GROUT

A. Nonshrink, Nonmetallic Grout: ASTM C1107, Grade B.
   1. Characteristics: Post-hardening, volume-adjusting, dry, hydraulic-cement grout, nonstaining, noncorrosive, nongaseous, and recommended for interior and exterior applications.
   2. Design Mix: 5,000-psi, 28-day compressive strength.
   3. Packaging: Premixed and factory-packaged.

2.5 ACCESS DOORS

A. Flush mounted steel access doors with 16 gauge frame and 14 gauge panel. Prime coat finish. Concealed spring hinges, screwdriver cam-lock. Doors in fire rated surfaces shall be UL listed and labeled. Doors to be Milcor or approved equivalent.

## PART 3 - EXECUTION

3.1 PIPING SYSTEMS - COMMON REQUIREMENTS

A. General: Install piping as described below, except where system Sections specify otherwise. Individual piping system Specification Sections in Divisions 23 specify piping installation requirements unique to the piping system.
B. General Locations and Arrangements: Drawings (plans, schematics, and diagrams) indicate general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated, except where deviations to layout are approved on Coordination Drawings.
C. Install piping at indicated slope.

D. Install components having pressure rating equal to or greater than system operating pressure.
E. Install piping in concealed interior and exterior locations, except in equipment rooms and service areas.
F. Install piping free of sags and bends.
G. Install exposed interior and exterior piping at right angles or parallel to building walls. Diagonal runs are prohibited, except where indicated.
H. Install piping tight to slabs, beams, joists, columns, walls, and other building elements. Allow sufficient space above removable ceiling panels to allow for ceiling panel removal.
I. Install piping to allow application of insulation plus 1-inch clearance around insulation.
J. Locate groups of pipes parallel to each other, spaced to permit valve servicing.
K. Install fittings for changes in direction and branch connections.
L. Install couplings according to manufacturer's printed instructions.
M. Install pipe escutcheons for pipe penetrations of concrete and masonry walls, wall board partitions, and suspended ceilings according to the following:
    1. Chrome-Plated Piping: Cast-brass, one-piece, with setscrew, and polished chrome-plated finish. Use split-casting escutcheons, where required, for existing piping.
    2. Uninsulated Piping Wall Escutcheons: Cast-brass or stamped-steel, with setscrew.
    3. Uninsulated Piping Floor Plates in Utility Areas: Cast-iron floor plates.
    4. Insulated Piping: Cast-brass or stamped-steel, with concealed hinge, spring clips, and chrome-plated finish.
    5. Piping in Utility Areas: Cast-brass or stamped-steel, with setscrew or spring clips.
N. Sleeves are required for core drilled holes.
O. Install sleeves for pipes passing through concrete and masonry walls, concrete floor and roof slabs, and where indicated.
P. Install sleeves for pipes passing through concrete and masonry walls, gypsum-board partitions, concrete floor and roof slabs, and where indicated.
    1. Cut sleeves to length for mounting flush with both surfaces.
        a. Exception: Extend sleeves installed in floors of mechanical equipment areas or other wet areas 4 inches above finished floor level. Extend cast-iron sleeve fittings below floor slab as required to secure clamping ring where specified.
    2. Build sleeves into new walls and slabs as Work progresses.
    3. Install large enough sleeves to provide 1/4-inch annular clear space between sleeve and pipe or pipe insulation. Use the following sleeve materials:
        a. Steel Pipe Sleeves: For pipes smaller than 6 inches.
        b. Steel Sheet-Metal Sleeves: For pipes 6 inches and larger that penetrate gypsum board partitions.
        c. Cast-Iron Sleeve Fittings: For floors having membrane waterproofing. Secure flashing between clamping flanges. Install section of cast-iron soil pipe to extend sleeve to 4 inches above finished floor level. Flashing is specified in Division 07.
            1) Seal space outside of sleeve fittings with nonshrink, nonmetallic grout.
    4. Except for below-grade wall penetrations, seal annular space between sleeve and pipe or pipe insulation, using elastomeric joint sealants specified in Division 07.

Q. Above Grade, Exterior Wall, and Pipe Penetrations: Seal penetrations using sleeves and mechanical sleeve seals. Size sleeve for 1-inch annular clear space between pipe and sleeve for installation of mechanical seals.
   1. Install steel pipe for sleeves smaller than 6 inches.
   2. Install cast-iron wall pipes for sleeves 6 inches and larger.
   3. Assemble and install mechanical seals according to manufacturer's printed instructions.

R. Below Grade, Exterior Wall, and Pipe Penetrations: Install cast-iron wall pipes for sleeves. Seal pipe penetrations using mechanical sleeve seals. Size sleeve for 1-inch annular clear space between pipe and sleeve for installation of mechanical seals.
   1. Below Grade, Exterior Wall, and Pipe Penetrations: Install ductile-iron wall penetration system sleeves according to manufacturer's printed installation instructions.

S. Fire Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with firestopping sealant material. Firestopping materials are specified in Division 07.

T. Verify final equipment locations for roughing in.

U. Refer to equipment specifications in other Sections for roughing-in requirements.

V. Piping Joint Construction: Join pipe and fittings as follows and as specifically required in individual piping system Sections.
   1. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
   2. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
   3. Soldered Joints: Construct joints according to AWS "Soldering Manual," in "The Soldering of Pipe and Tube" chapter.
   4. Brazed Joints: Construct joints according to AWS "Brazing Manual" in the "Pipe and Tube" chapter.
   5. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full inside diameter. Join pipe fittings and valves as follows:
      a. Note the internal length of threads in fittings or valve ends, and proximity of internal seat or wall, to determine how far pipe should be threaded into joint.
      b. Apply appropriate tape or thread compound to external pipe threads (except where dry seal threading is specified).
      c. Align threads at point of assembly.
      d. Tighten joint with wrench. Apply wrench to valve end into which pipe is being threaded.
      e. Damaged Threads: Do not use pipe or pipe fittings having threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.
   6. Welded Joints: Construct joints according to AWS D10.12 "Recommended Practices and Procedures for Welding Low Carbon Steel Pipe" using qualified processes and welding operators according to the "Quality Assurance" Article.
   7. Flanged Joints: Align flange surfaces parallel. Select appropriate gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Assemble joints by sequencing bolt tightening to make initial contact of flanges and gaskets as flat and parallel as possible. Use suitable lubricants on bolt threads. Tighten bolts gradually and uniformly using torque wrench.

8. Plastic Pipe and Fitting Solvent-Cement Joints: Clean and dry joining surfaces by wiping with clean cloth or paper towels. Join pipe and fittings according to the following standards:
   a. Comply with ASTM F402 for safe handling of solvent-cement and primers.
   b. Acrylonitrile-Butadiene-Styrene (ABS): ASTM D2235 and ASTM D2661.
   c. Chlorinated Poly (Vinyl Chloride) (CPVC): ASTM D2846 and ASTM F493.
   d. Poly (Vinyl Chloride) (PVC) Pressure Application: ASTM D2672.
   e. Poly (Vinyl Chloride) (PVC) Non-Pressure Application: ASTM D2855.
   f. PVC to ABS (Non-Pressure) Transition: Procedure and solvent cement described in ASTM D3138.
9. Plastic Pipe and Fitting Heat-Fusion Joints: Prepare pipe and fittings and join with heat-fusion equipment according to manufacturer's printed instructions.
   a. Plain-End Pipe and Fittings: Butt joining.
   b. Plain-End Pipe and Socket-Type Fittings: Socket joining.

W. Piping Connections: Except as otherwise indicated, make piping connections as specified below.
1. Install unions in piping 2 inches and smaller adjacent to each valve and at final connection to each piece of equipment having a 2-inch or smaller threaded pipe connection.
2. Install flanges in piping 2-1/2 inches and larger adjacent to flanged valves and at final connection to each piece of equipment having flanged pipe connection.
3. Dry Piping Systems (Gas): Install dielectric unions and flanges to connect piping materials of dissimilar metals.
4. Wet Piping Systems (Water): Install dielectric coupling and nipple fittings to connect piping materials of dissimilar metals.

## 3.2 EQUIPMENT INSTALLATION - COMMON REQUIREMENTS

A. Install equipment to provide the maximum possible headroom where mounting heights are not indicated.
B. Install equipment according to approved submittal data. Portions of the Work are shown only in diagrammatic form. Refer conflicts to Engineer.
C. Install equipment level and plumb, parallel and perpendicular to other building systems and components in exposed interior spaces, except where otherwise indicated.
D. Install mechanical equipment to facilitate servicing, maintenance, and repair or replacement of equipment components. Connect equipment for ease of disconnecting, with minimum of interference with other installations. Extend grease fittings to an accessible location.
E. Install equipment giving right-of-way to piping systems installed at a required slope.

## 3.3 ACCESS DOORS

A. Furnish an access door for each pipe chase for each floor. This includes both toilet plumbing chases and pipe riser chases. Access doors assembly to be size 16 by 16 inches. Access doors are not shown on floor plans. Access door locations shall be field verified.
B. Also, furnish access doors in all non-removable ceiling and in partitions and walls where necessary access to plumbing cleanouts, shock absorbers, fire dampers, manual dampers, valves and other mechanical devices requiring access. Size these as required for access with minimum size of 12 by 12 inches.

C. Any access doors furnished for installation in fire rated surfaces or assembly shall carry an approved fire rating for that use.
D. Any access doors furnished for installation in glued on acoustical surfaces or assembly shall have recessed door to allow installation of tiles.
E. Provide all access doors to General Contractor for them to construct into the building.

3.4 PAINTING AND FINISHING

A. Refer to Division 09 for field painting requirements.
B. Damage and Touch-Up: Repair marred and damaged factory-painted finishes with materials and procedures to match original factory finish.

3.5 CONCRETE BASES

A. Construct concrete equipment bases of dimensions indicated, but not less than 4 inches larger than supported unit in both directions. Follow supported equipment manufacturer's setting templates for anchor bolt and tie locations. Use 3,000-psi, 28-day compressive strength concrete and reinforcement use fibrillated or monofilament polypropylene fibers engineered and designed for use in concrete, complying with ASTM C 1116, Type III, 1/2- to 1-1/2 inches long. Uniformly disperse in concrete mix at manufacturer's recommended rate, but not less than 1.5 pound per cubic yard.

3.6 ERECTION OF METAL SUPPORTS AND ANCHORAGE

A. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor mechanical materials and equipment.
B. Field Welding: Comply with AWS D1.1 "Structural Welding Code - Steel."

3.7 ERECTION OF WOOD SUPPORTS AND ANCHORAGE

A. Cut, fit, and place wood grounds, nailers, blocking, and anchorage to support and anchor mechanical materials and equipment.
B. Select fastener sizes that will not penetrate members where oppoSite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood members.
C. Attach to substrates as required to support applied loads.

3.8 CUTTING AND PATCHING

A. Cut, channel, chase, and drill floors, walls, partitions, ceilings, and other surfaces necessary for mechanical installations. Perform cutting by skilled mechanics of the trades involved.
B. Repair cut surfaces to match adjacent surfaces.

3.9 GROUTING

A. Install nonmetallic, nonshrink grout for mechanical equipment base bearing surfaces, pump and other equipment base plates, and anchors. Mix grout according to manufacturer's printed instructions.
B. Clean surfaces that will come into contact with grout.

C. Provide forms for placement of grout, as required.
D. Avoid air entrapment when placing grout.
E. Place grout to completely fill equipment bases.
F. Place grout on concrete bases to provide a smooth bearing surface for equipment.
G. Place grout around anchors.
H. Cure placed grout according to manufacturer's printed instructions.

3.10 DEMOLITION

A. Disconnect, demolish, and remove Work specified under Divisions 23 and as indicated.
B. Where pipe, duct Work, insulation, or equipment to remain is damaged or disturbed, remove damaged portions and install new products of equal capacity and quality.
C. Accessible Work: Remove indicated exposed pipe and duct Work in its entirety.
D. Abandoned Work: Cut and remove buried pipe abandoned in place, 2 inches beyond the face of adjacent construction. Cap and patch surface to match existing finish.
E. Removal: Remove indicated equipment from the Project Site.
F. Temporary Disconnection: Remove, store, clean, reinstall, reconnect, and make operational equipment indicated for relocation.

END OF SECTION

# SECTION 23 05 53 - IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Nameplates.
   2. Tags.
   3. Stencils.
   4. Pipe markers.

B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCES

A. American Society of Mechanical Engineers:
   1. ASME A13.1 - Scheme for the Identification of Piping Systems.

### 1.3 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechanical Requirements."
B. Product Data: Submit manufacturers catalog literature for each product required.
C. Manufacturer's Installation Instructions: Indicate installation instructions, special procedures, and installation.
D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

### 1.4 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of tagged valves; include valve tag numbers.

### 1.5 QUALITY ASSURANCE

A. Conform to ASME A13.1 for color scheme for identification of piping systems and accessories.

### 1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' experience.

### 1.7 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

## PART 2 - PRODUCTS

2.1 NAMEPLATES

A. Nameplates
   1. Manufacturers:
      a. Seton Identification Products.
      b. Substitutions: Section 23 05 00 "Generald Mechanical Requirements.

B. Product Description: Laminated three-layer plastic with engraved black etters on light contrasting background color.

2.2 TAGS

A. Metal Tags
   1. Manufacturers:
      a. Brass with stamped letters; tag size minimum 1-1/2 inches diameter with finished edges.

B. Tag Chart: Typewritten letter size list of applied tags and location in anodized aluminum frame.

2.3 STENCILS

A. Stencils: With clean cut symbols and letters of following size:
   1. Up to 2 inches Outside Diameter of Insulation or Pipe: 1/2-inch high letters.
   2. Two and one half to 6 inches Outside Diameter of Insulation or Pipe: 1-inch high letters.
   3. Over 6 inches Outside Diameter of Insulation or Pipe: 1-3/4 inches high letters.
   4. Equipment: 1-3/4 inches high letters.

B. Stencil Paint: As specified in Section 09 90 00, semi-gloss enamel, colors and lettering size conforming to ASME A13.1.

2.4 PIPE MARKERS

A. Color and Lettering: Conform to ASME A13.1.

B. Plastic Pipe Markers:
   1. Factory fabricated, flexible, semi-rigid plastic, preformed to fit around pipe or pipe covering. Larger sizes may have maximum sheet size with spring fastener.

C. Plastic Tape Pipe Markers:
   1. Flexible, vinyl film tape with pressure sensitive adhesive backing and printed markings.

D. Plastic Underground Pipe Markers:
   1. Bright colored continuously printed plastic ribbon tape, minimum 6 inches wide by 4 mil thick, manufactured for direct burial service. Markers used on nonmetallic pipe shall contain tracer wire.

## PART 3 - EXECUTION

3.1 PREPARATION

A. Degrease and clean surfaces to receive adhesive for identification materials.
B. Prepare surfaces in accordance with Division 09 for stencil painting.

3.2 INSTALLATION

A. Apply stencil painting in accordance with Division 09.
B. Install identifying devices after completion of coverings and painting.
C. Install plastic nameplates with corrosive-resistant mechanical fasteners, or adhesive.
D. Install tags using corrosion resistant chain. Number tags consecutively by location.
E. Install underground plastic pipe markers 8 to 10 inches below finished grade, directly above buried pipe.
F. Identify air handling units, pumps, heat transfer equipment, tanks, and water treatment devices with plastic nameplates. Identify in-line pumps and other small devices with tags.
G. Identify control panels and major control components outside panels with plastic nameplates.
H. Identify valves in main and branch piping with tags.
I. Identify air terminal units and radiator valves with numbered tags.
J. Tag automatic controls, instruments, and relays. Key to control schematic.
K. Identify piping, concealed or exposed, with plastic pipe markers, plastic tape pipe markers,or stenciled painting. Use tags on piping 3/4-inch diameter and smaller. Identify service, flow direction, and pressure. Install in clear view and align with axis of piping. Locate identification not to exceed 20 feet on straight runs including risers and drops, adjacent to each valve and tee, at each side of penetration of structure or enclosure, and at each obstruction.

END OF SECTION


PACKET 7.423 September 12, 2023
PACKET 11.425 November 14, 2023

# SECTION 23 07 05 - HVAC AND PLUMBING INSULATION

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Ductwork insulation.
   2. Duct liner.
   3. Insulation jackets.
   4. Piping system insulation.
   5. Insulation accessories including vapor retarders, jackets, and accessories.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCES

A. ASTM International:
   1. ASTM A167 - Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
   2. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
   3. ASTM C177 - Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
   4. ASTM C195 - Standard Specification for Mineral Fiber Thermal Insulating Cement.
   5. ASTM C449 - Standard Specification for Mineral Fiber Hydraulic-Setting Thermal Insulating and Finishing Cement.
   6. ASTM C518 - Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
   7. ASTM C533 - Standard Specification for Calcium Silicate Block and Pipe Thermal Insulation.
   8. ASTM C534 - Standard Specification for Preformed Flexible Elastomeric Cellular Thermal Insulation in Sheet and Tubular Form.
   9. ASTM C547 - Standard Specification for Mineral Fiber Pipe Insulation.
   10. ASTM C552 - Standard Specification for Cellular Glass Thermal Insulation.
   11. ASTM C553 - Standard Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications.
   12. ASTM C591 - Standard Specification for Unfaced Preformed Rigid Cellular Polyisocyanurate Thermal Insulation.
   13. ASTM C592 - Standard Specification for Mineral Fiber Blanket Insulation and Blanket-Type Pipe Insulation (Metal-Mesh Covered) (Industrial Type).
   14. ASTM C610 - Standard Specification for Molded Expanded Perlite Block and Pipe Thermal Insulation.
   15. ASTM C612 - Standard Specification for Mineral Fiber Block and Board Thermal Insulation.
   16. ASTM C795 - Standard Specification for Thermal Insulation for Use in Contact with Austenitic Stainless Steel.

17. ASTM C921 - Standard Practice for Determining the Properties of Jacketing Materials for Thermal Insulation.
18. ASTM C1071 - Standard Specification for Thermal and Acoustical Insulation (Glass Fiber, Duct Lining Material).
19. ASTM C1126 - Standard Specification for Faced or Unfaced Rigid Cellular Phenolic Thermal Insulation.
20. ASTM C1136 - Standard Specification for Flexible, Low Permeance Vapor Retarders for Thermal Insulation.
21. ASTM C1290 - Standard Specification for Flexible Fibrous Glass Blanket Insulation Used to Externally Insulate HVAC Ducts.
22. ASTM D1784 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
23. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
24. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.
25. ASTM E162 - Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source.
26. ASTM G21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.

B. Sheet Metal and Air Conditioning Contractors:
   1. SMACNA - HVAC Duct Construction Standard - Metal and Flexible.

## 1.3 SUBMITTALS

A. Refer to Division 01 and Section 23 05 00 "General Mechanical Requirements" for submittals.
B. Product Data: Submit product description, thermal characteristics and list of materials and thickness for each service, and location.
C. Manufacturer's Installation Instructions: Submit manufacturers published literature indicating proper installation procedures.
D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

## 1.4 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Applicator: Company specializing in performing Work of this Section with minimum 3 years' experience approved by manufacturer.

## 1.5 DELIVERY, STORAGE, AND HANDLING

A. Accept materials on Site in original factory packaging, labeled with manufacturer's identification, including product density and thickness.
B. Protect insulation from weather and construction traffic, dirt, water, chemical, and mechanical damage, by storing in original wrapping.

## 1.6 ENVIRONMENTAL REQUIREMENTS

A. Install insulation only when ambient temperature and humidity conditions are within range recommended by manufacturer.
B. Maintain temperature during and after installation for minimum period of 24 hours.

1.7 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.8 WARRANTY

A. Refer to Section 23 05 00 "General Mechanical Requirements" for product warranties.

**PART 2 - PRODUCTS**

2.1 MAN MADE MINERAL FIBER

A. Manufacturers:
   1. Johns Manville.
   2. Knauf.
   3. Owens Corning.
   4. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements" for substitutions.
B. Insulation: ASTM C547 Mineral Fiber Pipe Insulation, Type I, 850 degrees F.
C. Vapor Retarder Jacket:
   1. ASTM C921, White Kraft paper with glass fiber yarn, bonded to aluminized film.
   2. Moisture Vapor Transmission: ASTM E96; 0.02 perm-inches.
D. Tie Wire: 0.048-inch stainless steel with twisted ends on maximum 12-inch centers.
E. Vapor Retarder Lap Adhesive: Compatible with insulation.
F. Insulating Cement/Mastic: ASTM C195; hydraulic setting on mineral wool.
G. Glass Fiber Fabric:
   1. Cloth: Untreated; 9 ounces per square yard weight.
   2. Blanket: 1.0 pound per cubic feet density.
   3. Weave: 10 by 10.
H. Indoor Vapor Retarder Finish:
   1. Cloth: Untreated; 9 ounces per square yard weight.
   2. Vinyl emulsion type acrylic, compatible with insulation, white color.
I. Insulating Cement: ASTM C449.

2.2 MINERAL FIBER, FLEXIBLE

A. Manufacturers:
   1. Johns Manville.
   2. Knauf.
   3. Owens Corning.
   4. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements" for substitutions.
B. Insulation: ASTM C553 Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications, Type II.
   1. Density: 0.75 PCF.
C. Vapor Retarder Jacket:
   1. Kraft paper with glass fiber yarn and bonded to aluminized film.
   2. Moisture vapor transmission: ASTM E96; 0.02 perm.
   3. Secure with pressure sensitive tape.

D. Vapor Retarder Tape: Kraft paper reinforced with glass fiber yarn and bonded to aluminized film, with pressure sensitive rubber-based adhesive.
E. Tie Wire: Annealed steel, 16 gauge.

2.3 ELASTOMERIC CELLULAR FOAM

A. Manufacturers:
1. Armaflex.
2. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements" for substitutions.
B. Preformed Flexible Elastomeric Cellular Thermal Insulation in Sheet and Tubular form: ASTM C534; Type I, Tubular form.
C. Elastomeric Foam Adhesive: Air dried, contact adhesive, compatible with insulation.

2.4 PIPE INSULATION AND EQUIPMENT JACKETS

A. PVC Plastic Pipe Jacket:
1. Manufacturers:
a. Johns Manville.
b. Knauf.
c. Owens Corning.
d. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements" for substitutions.
2. Product Description: ASTM D1784, one-piece molded type fitting covers and sheet material, off-white color.
3. Thickness: 15 mil.
4. Connections: Brush-on welding adhesive.
B. PVC Plastic Equipment Jacket:
1. Manufacturers:
a. Johns Manville.
b. Knauf.
c. Owens Corning.
d. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements" for substitutions.
2. Product Description: Sheet material, off-white color.
3. Minimum Service Temperature: Minus 40 degrees F.
4. Maximum Service Temperature: 150 degrees F.
5. Moisture Vapor Transmission: ASTM E96; 0.002 perm-inches.
6. Thickness: 15 mil.
7. Connections: Brush-on welding adhesive.
C. Covering Adhesive Mastic: Compatible with insulation.
D. Aluminum Pipe Jacket:
1. ASTM B209.
2. Thickness: 0.020-inch thick
3. Finish: Stucco embossed.
4. Jointing: Longitudinal slip joints and 2-inch laps.
5. Fittings: 0.016-inch thick die shaped fitting covers with factory attached protection liner.
6. Metal Jacket Bands: 3/8-inch wide; 0.015-inch thick aluminum.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Verify piping, equipment and ductwork has been tested before applying insulation materials.
B. Verify surfaces are clean and dry, with foreign material removed.

### 3.2 INSTALLATION

A. Exposed Piping: Locate insulation and cover seams in least visible locations. Provide PVC jacketing.
B. Insulated pipes conveying fluids below ambient temperature: Insulate entire system including fittings, valves, unions, flanges, strainers, flexible connections, pump bodies, and expansion joints.
C. Man made mineral fiber insulated pipes conveying fluids below ambient temperature:
   1. Furnish factory-applied or field-applied vapor retarder jackets. Secure factory-applied jackets with pressure sensitive adhesive self-sealing longitudinal laps and butt strips. Secure field-applied jackets with outward clinch expanding staples and seal staple penetrations with vapor retarder mastic.
   2. Insulate fittings, joints, and valves with molded insulation of like material and thickness as adjacent pipe. Finish with glass cloth and vapor retarder adhesive or PVC fitting covers.
D. For hot piping conveying fluids over 140 degrees F, insulate flanges and unions at equipment.
E. Man made mineral fiber insulated pipes conveying fluids above ambient temperature:
   1. Furnish factory-applied or field-applied standard jackets. Secure with outward clinch expanding staples or pressure sensitive adhesive system on standard factory-applied jacket and butt strips or both.
   2. Insulate fittings, joints, and valves with insulation of like material and thickness as adjoining pipe. Finish with glass cloth and adhesive or PVC fitting covers.
F. Inserts and Shields:
   1. Application: Piping or Equipment 1-1/2 inches diameter or larger.
   2. Shields: Galvanized steel between pipe hangers or pipe hanger rolls and inserts.
   3. Insert location: Between support shield and piping and under finish jacket.
   4. Insert configuration: Minimum 6 inches long, of thickness and contour matching adjoining insulation; may be factory fabricated.
   5. Insert material: Compression resistant insulating material suitable for planned temperature range and service.
G. Continue insulation through penetrations of building assemblies or portions of assemblies having fire resistance rating of 1 hour or less. Provide intumescent firestopping when continuing insulation through assembly. Finish at supports, protrusions, and interruptions. Refer to Division 07 for penetrations of assemblies with fire resistance rating greater than 1 hour.
H. Factory Insulated Equipment: Do not insulate.
I. Exposed Equipment: Locate insulation and cover seams in least visible locations.
J. Apply insulation close to equipment by grooving, scoring, and beveling insulation. Fasten insulation to equipment with studs, pins, clips, adhesive, wires, or bands.

K. Fill joints, cracks, seams, and depressions with bedding compound to form smooth surface. On cold equipment, use vapor retarder cement.

L. Insulated Equipment Containing Fluids Below Ambient Temperature: Insulate entire system.

M. Mineral fiber insulated equipment containing fluids below ambient temperature: Provide vapor retarder jackets, factory-applied or field-applied. Finish with glass-cloth and vapor barrier adhesive.

N. For hot equipment containing fluids over 140 degrees F, insulate flanges and unions with removable sections and jackets.

O. Mineral Fiber Insulated Equipment Containing Fluids Above Ambient Temperature: Provide standard jackets, with or without vapor retarder, factory-applied or field-applied. Finish with glass cloth and adhesive.

P. Finish insulation at supports, protrusions, and interruptions.

Q. Nameplates and ASME Stamps: Bevel and seal insulation around; do not insulate over.

R. Equipment Requiring Access for Maintenance, Repair, or Cleaning: Install insulation for easy removal and replacement without damage.

S. Insulated ductwork conveying air below ambient temperature:
   1. Provide insulation with vapor retarder jackets.
   2. Finish with tape and vapor retarder jacket.
   3. Continue insulation through walls, sleeves, hangers, and other duct penetrations.
   4. Insulate entire system including fittings, joints, flanges, fire dampers, flexible connections, and expansion joints.

T. Insulated ductwork conveying air above ambient temperature:
   1. Provide with or without standard vapor retarder jacket.
   2. Insulate fittings and joints. Where service access is required, bevel and seal ends of insulation.

U. External Duct Insulation Application:
   1. Secure insulation with vapor retarder with wires and seal jacket joints with vapor retarder adhesive or tape to match jacket.
   2. Secure insulation without vapor retarder with staples, tape, or wires.
   3. Install without sag on underside of ductwork. Use adhesive or mechanical fasteners where necessary to prevent sagging. Lift ductwork off trapeze hangers and insert spacers.
   4. Seal vapor retarder penetrations by mechanical fasteners with vapor retarder adhesive.
   5. Stop and point insulation around access doors and damper operators to allow operation without disturbing wrapping.

V. For hot equipment containing fluids over 140 degrees F, insulate flanges and unions with removable sections and jackets.

W. Exterior Applications: Provide vapor retarder jacket. Insulate fittings, joints, and valves with insulation of like material and thickness as adjoining pipe, and finish with glass mesh reinforced vapor retarder cement. Cover with aluminum jacket with seams located at 3 or 9 o' clock position on side of horizontal piping with overlap facing down to shed water.

3.3 SCHEDULES

A. Plumbing Systems:
   1. Domestic Hot Water Supply:
      a. Man-made Mineral Fiber Insulation:
         1) Pipe Size Range: 1.5-inch or less.
            a) Thickness: 1 inch.
         2) Pipe Size Range: Greater than 1.5 inches.
            a) Thickness: 2 inches.
         3) Runout Piping 4 feet or less:
            a) Pipe Size Range: 1 inch or less.
            b) Thickness: 1/2-inch.
   2. Domestic Cold Water:
      a. Man-made Mineral Fiber Insulation:
         1) Pipe Size Range: All sizes.
            a) Thickness: 1/2-inch.

B. Cooling Systems:
   1. Interior Condensate Drains and Refrigerant Suction Piping:
      a. Elastomeric Cellular Foam:
         1) Pipe Size Range: All sizes.
            a) Thickness: 3/4-inch.

C. Supply Ducts:
   1. Mineral Fiber, Flexible:
      a. Thickness: As required to meet R-6.

D. Return Ducts:
   1. Mineral Fiber, Flexible (return ducts without liner):
      a. Thickness: As required to meet R-6.

END OF SECTION

# SECTION 23 23 00 - REFRIGERANT PIPING

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Refrigerant piping.
2. Unions, flanges, and couplings.
3. Valves.
4. Refrigerant strainers.

B. Related Sections:
1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. Air-Conditioning and Refrigeration Institute:
1. ARI 495 - Refrigerant Liquid Receivers.
2. ARI 710 - Liquid-Line Driers.
3. ARI 730 - Flow-Capacity Rating and Application of Suction-Line Filters and Filter Dryers.
4. ARI 750 - Thermostatic Refrigerant Expansion Valves.
5. ARI 760 - Solenoid Valves for Use with Volatile Refrigerants.

B. American Society of Heating, Refrigerating and Air-Conditioning Engineers:
1. ASHRAE 15 - Safety Code for Mechanical Refrigeration.

C. American Society of Mechanical Engineers:
1. ASME B16.22 - Wrought Copper and Copper Alloy Solder Joint Pressure Fittings.
2. ASME B16.26 - Cast Copper Alloy Fittings for Flared Copper Tubes.
3. ASME B31.5 - Refrigeration Piping.
4. ASME Section VIII - Boiler and Pressure Vessel Code - Pressure Vessels.

D. ASTM International:
1. ASTM A53 - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
2. ASTM A234 - Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service.
3. ASTM B88 - Standard Specification for Seamless Copper Water Tube.
4. ASTM B280 - Standard Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service.
5. ASTM F708 - Standard Practice for Design and Installation of Rigid Pipe Hangers.
6. ASTM B749 - Standard Specification for Lead and Lead Alloy Strip, Sheet, and Plate Products.

E. American Welding Society:
1. AWS A5.8 - Specification for Filler Metals for Brazing and Braze Welding.
2. AWS D1.1 - Structural Welding Code - Steel.

F. Manufacturers Standardization Society of the Valve and Fittings Industry:
   1. MSS SP 58 - Pipe Hangers and Supports - Materials, Design and Manufacturer.
   2. MSS SP 69 - Pipe Hangers and Supports - Selection and Application.
   3. MSS SP 89 - Pipe Hangers and Supports - Fabrication and Installation Practices.

G. Underwriters Laboratories Inc.:
   1. UL 429 - Electrically Operated Valves.

1.3 SYSTEM DESCRIPTION

A. Where more than one piping system material is specified, provide compatible system components and joints. Use non-conducting dielectric connections when joining dissimilar metals in systems.

B. Provide flanges, unions, or couplings at locations requiring servicing. Use unions, flanges, or couplings downstream of valves and at equipment connections. Do not use direct welded or threaded connections to valves or equipment.

C. Provide pipe hangers and supports in accordance with ASME B31.5, ASTM F708, MSS SP 58, MSS SP 69, and MSS SP 89.

1.4 SUBMITTALS

A. Division 01 and Section 23 05 00 "Submittal Procedures."

B. Product Data:
   1. Piping: Submit data on pipe materials, fittings, and accessories.
   2. Valves: Submit manufacturer's catalog information with valve data and ratings for each service.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with ASME B31.5 code for installation of refrigerant piping systems.

B. Perform Work in accordance with AWS D1.1 for welding hanger and support attachments to building structure.

C. Perform Work in accordance with State and local standards.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum 3 years' documented experience.

B. Fabricator or Installer: Company specializing in performing Work of this section with minimum 3 years' experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Dehydrate and charge refrigeration components including piping and receivers, seal prior to shipment. Maintain seal until connected into system.

B. Accept valves on site in shipping containers with labeling in place. Inspect for damage.

C. Provide temporary end caps and closures on piping and fittings. Maintain in place until installation.

D. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the Work, and isolating parts of completed system.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Do not install underground piping when bedding is wet or frozen.

1.9 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.10 WARRANTY

A. Division 01 and Section 23 05 00 "General Mechanical Requirements."

## PART 2 - PRODUCTS

2.1 REFRIGERANT PIPING

A. Copper Tubing: ASTM B280, drawn.
   1. Fittings: ASME B16.22 wrought copper.
   2. Joints: Braze, AWS A5.8 BCuP silver/phosphorus/copper alloy with melting range 1,190 to ,480 degrees F.

2.2 UNIONS, FLANGES, AND COUPLINGS

A. Two inches and Smaller:
   1. Copper Pipe: Bronze, soldered joints.
B. Dielectric Connections: Union with galvanized or plated steel threaded end, copper solder end, water impervious isolation barrier.

2.3 VALVES

A. Ball Valves:
   1. Two piece bolted forged brass body with teflon ball seals and copper tube extensions, brass bonnet and seal cap, chrome plated ball, stem with neoprene ring stem seals, soldered ends.
   2. Maximum working pressure: 500 psig.
   3. Maximum working temperature: 325 degrees F.
B. Service Valves:
   1. Forged brass body with copper stubs, brass caps, removable valve core, integral ball check valve, flared or solder ends.
   2. Maximum working pressure: 500 psig.
C. Refrigerant Check Valves:
   1. Straight Through Type:
      a. Spring, neoprene seat.
      b. Maximum working pressure: 500 psig.
      c. Maximum working temperature: 250 degrees F.

2.4 REFRIGERANT STRAINERS

A. Straight Line or Angle Line Type:
   1. Brass or steel shell, steel cap and flange, and replaceable cartridge, with screen of stainless steel wire or monel reinforced with brass.
   2. Maximum working pressure: 430 psig.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify excavations are to required grade, dry, and not over-excavated.

3.2 PREPARATION

A. Ream pipe and tube ends. Remove burrs.
B. Remove scale and dirt on inside and outside before assembly.
C. Prepare piping connections to equipment with flanges or unions.
D. Keep open ends of pipe free from scale and dirt. Protect open ends with temporary plugs or caps.

3.3 INSTALLATION - INSERTS

A. Provide inserts for placement in concrete forms.
B. Provide inserts for suspending hangers from reinforced concrete slabs and sides of reinforced concrete beams.
C. Provide hooked rod to concrete reinforcement section for inserts carrying pipe 4 inches and larger.
D. Where concrete slabs form finished ceiling, locate inserts flush with slab surface.
E. Where inserts are omitted, drill through concrete slab from below and provide through-bolt with recessed square steel plate and nut recessed into and grouted flush with slab.

3.4 INSTALLATION - PIPE HANGERS AND SUPPORTS

A. Refer to Section 22 05 09 "Hangers and Supports."

3.5 INSTALLATION - ABOVE GROUND PIPING SYSTEMS

A. Route piping parallel to building structure and maintain gradient.
B. Install piping to conserve building space, and not interfere with use of space.
C. Group piping whenever practical at common elevations.
D. Sleeve pipe passing through partitions, walls and floors. Refer to Section 23 05 00 "General Mechanical Requirements."
E. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.
F. Provide access where valves and fittings are not exposed.
G. Arrange refrigerant piping to return oil to compressor. Provide traps and loops in piping, and provide double risers as required. Slope horizontal piping 0.40 percent in direction of flow.
H. Flood refrigerant piping system with nitrogen when brazing.

I. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welds.
J. Install valves with stems upright or horizontal, not inverted.
K. Insulate piping ; refer to Section 23 07 05 "HVAC and Plumbing Installation."
L. Fully charge completed system with refrigerant after testing.
M. Follow ASHRAE 15 procedures for charging and purging of systems and for disposal of refrigerant.
N. Install refrigerant piping in accordance with ASME B31.5.

3.6 FIELD QUALITY CONTROL

A. Test refrigeration system in accordance with ASME B31.5.
B. Pressure test refrigeration system with dry nitrogen to 200 psig.
C. Repair leaks.
D. Retest until no leaks are detected.

3.7 SCHEDULES

A. Copper Tube Hanger Spacing:
1. Pipe Size 1/2-Inch:
a. Maximum Hanger Spacing: 5 feet.
b. Hanger Rod Diameter: 3/8-inch.
2. Pipe Size 3/4-Inch:
a. Maximum Hanger Spacing: 5 feet.
b. Hanger Rod Diameter: 3/8-inch.
3. Pipe Size 1 Inch:
a. Maximum Hanger Spacing: 6 feet.
b. Hanger Rod Diameter: 3/8-inch.
4. Pipe Size 1-1/4 Inches:
a. Maximum Hanger Spacing: 7 feet.
b. Hanger Rod Diameter: 3/8-inch
5. Pipe Size 1-1/2 Inches:
a. Maximum Hanger Spacing: 8 feet.
b. Hanger Rod Diameter: 3/8-inch.
6. Pipe Size 2 Inches:
a. Maximum Hanger Spacing: 8 feet.
b. Hanger Rod Diameter: 3/8-inch.
7. Pipe Size 2-1/2 Inches:
a. Maximum Hanger Spacing: 9 feet.
b. Hanger Rod Diameter: 1/2-inch.
8. Pipe Size 3 Inches:
a. Maximum Hanger Spacing: 10 feet.
b. Hanger Rod Diameter: 1/2-inch.
9. Pipe Size 4 Inches:
a. Maximum Hanger Spacing: 10 feet.
b. Hanger Rod Diameter: 1/2-inch.

END OF SECTION

## SECTION 23 31 00 - HVAC DUCTS AND CASINGS

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Duct materials.
   2. Ductwork fabrication.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCE STANDARDS

A. ASTM International:
   1. ASTM A36 - Standard Specification for Carbon Structural Steel.
   2. ASTM A90 - Standard Test Method for Weight Mass of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings.
   3. ASTM A167 - Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
   4. ASTM A568 - Standard Specification for Steel, Sheet, Carbon, Structural, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, General Requirements for.
   5. ASTM A653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
   6. ASTM A1008 - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable.
   7. ASTM A1011 - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength.
   8. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
   9. ASTM C14 - Standard Specification for Nonreinforced Concrete Sewer, Storm Drain, and Culvert Pipe.
   10. ASTM C443 - Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets.
   11. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

B. National Fire Protection Association:
   1. NFPA 90A - Standard for the Installation of Air-Conditioning and Ventilating Systems.
   2. NFPA 90B - Standard for the Installation of Warm Air Heating and Air-Conditioning Systems.

C. Sheet Metal and Air Conditioning Contractors' National Association:
   1. SMACNA 016 - HVAC Air Duct Leakage Test Manual.
   2. SMACNA 1966 - HVAC Duct Construction Standards - Metal and Flexible.

D. Underwriters Laboratories Inc.:
   1. UL 181 - Factory-Made Air Ducts and Air Connectors.

1.3 PERFORMANCE REQUIREMENTS

A. Variation of duct configuration or sizes other than those of equivalent or lower loss coefficient is not permitted except by written permission. Size round ducts installed in place of rectangular ducts in accordance with ASHRAE table of equivalent rectangular and round ducts.

1.4 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechnical Requirements."
B. Product Data: Submit manufacturer information for duct materials and, duct connectors.

C. Test Reports: Indicate pressure tests performed, including date, section tested, test pressure, and leakage rate according to SMACNA 016.
D. Manufacturer Installation Instructions:
   1. Submit special procedures for glass-fiber ducts.

1.5 CLOSEOUT SUBMITTALS

A. Project Record Documents:
   1. Record actual locations of ducts and duct fittings.
   2. Record changes in fitting location and type.
   3. Show additional fittings used.

1.6 QUALITY ASSURANCE

A. Perform Work according to SMACNA 1966.
B. Construct ductwork to NFPA 90A standards.

1.7 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' experience .

1.8 ENVIRONMENTAL REQUIREMENTS

A. Do not install duct sealant when temperatures are less than those recommended by sealant manufacturers.
B. Maintain temperatures during and after installation of duct sealant.

1.9 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrications.

1.10 WARRANTY

A. Section 23 05 00 "General Mechanical Requirements" for product warranties.

## PART 2 - PRODUCTS

2.1 DUCTS MATERIALS

A. Galvanized-Steel Ducts:
   1. Material: ASTM A653 galvanized-steel sheet.
   2. Quality: Lock forming.
   3. Finish: G90 zinc coating according to ASTM A90.

B. Fasteners: Rivets, bolts, or sheet metal screws.

2.2 FABRICATION

A. Rectangular Ducts:
   1. According to SMACNA 1966 and as indicated on Drawings.
   2. Provide duct material, gages, reinforcing, and sealing for indicated operating pressures.

B. Round Ducts:
   1. According to SMACNA 1966 and as indicated on Drawings.
   2. Seams: Longitudinal.
   3. Provide duct material, gages, reinforcing, and sealing for indicated operating pressures.

C. Tees, Bends, and Elbows:
   1. Minimum Radius:
      a. One and one half times centerline duct width.
      b. If not possible or if rectangular elbows are used, provide airfoil turning vanes.

D. Divergence:
   1. Increase duct sizes gradually, not exceeding 15 degrees of divergence wherever possible.
   2. Upstream of Equipment: Maximum 30 degrees.
   3. Downstream of Equipment: Maximum 45 degrees.

E. Takeoffs:
   1. Provide standard 45-degree lateral wye takeoffs.
   2. If not possible due to space limitations, provide 90-degree conical tee connections.

F. Sealing:
   1. Seal joints between duct sections and duct seams with welds, gaskets, mastic adhesives, mastic plus embedded fabric systems, or tape.
   2. Sealants, Mastics, and Tapes: Comply with UL 181A and provide products bearing appropriate UL 181A markings.
   3. Do not provide sealing products not bearing UL approval marking.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify sizes of equipment connections before fabricating transitions.

3.2 INSTALLATION

A. Install and seal ducts according to SMACNA 1966.
B. During construction, install temporary closure of metal or taped polyethylene on open ductwork to prevent construction dust from entering ductwork system.
C. Hanger and Supports:
   1. Fabricate and support ducts according to SMACNA 1966.
   2. Threaded Rods: Provide double nuts and lock washers.

3.3 INTERFACE WITH OTHER PRODUCTS

A. Install openings in ductwork where required to accommodate thermometers and controllers. Install Pitot tube openings for testing of systems. Install Pitot tube complete with metal can with spring device or screw to prevent air leakage. Where openings are provided in insulated ductwork, install insulation material inside metal ring.

3.4 SCHEDULES

A. Ductwork Material Schedule:

| AIR SYSTEM | MATERIAL |
|---|---|
| General Exhaust<br>Supply Air<br>Return Air | Steel |

B. Ductwork Pressure Class Schedule:

| AIR SYSTEM | MATERIAL |
|---|---|
| General Exhaust<br>Supply Air<br>Return Air | 1-inch wg regardless of velocity |

END OF SECTION

# SECTION 23 33 00 - AIR DUCT ACCESSORIES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Back-draft dampers.
   2. Duct access doors.
   3. Volume control dampers.
   4. Flexible duct connections.
   5. Duct test holes.

B. Related Sections:
   1. Division 01 Specification Section apply to Work of this Section.

1.2 REFERENCES

A. Air Movement and Control Association International, Inc.:
   1. AMCA 500 - Test Methods for Louvers, Dampers, and Shutters.

B. ASTM International:
   1. ASTM E1 - Standard Specification for ASTM Thermometers.

C. National Fire Protection Association:
   1. NFPA 90A - Standard for the Installation of Air Conditioning and Ventilating Systems.
   2. NFPA 92A - Recommended Practice for Smoke-Control Systems.

D. Sheet Metal and Air Conditioning Contractors:
   1. SMACNA - HVAC Duct Construction Standard - Metal and Flexible.

E. Underwriters Laboratories Inc.:
   1. UL 555 - Standard for Safety for Fire Dampers.
   2. UL 555C - Standard for Safety for Ceiling Dampers.
   3. UL 555S - Standard for Safety for Smoke Dampers.

1.3 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechanical Requirements."

B. Product Data: Submit data for shop fabricated assemblies and hardware used.

C. Product Data: Submit for the following. Include where applicable electrical characteristics and connection requirements.
   1. Fire dampers including locations and ratings.
   2. Smoke dampers including locations and ratings.
   3. Backdraft dampers.
   4. Flexible duct connections.
   5. Volume control dampers.
   6. Duct access doors.
   7. Duct test holes.

D. Product Data: For fire dampers, smoke dampers, or combination fire and smoke dampers submit the following:
   1. Include UL ratings, dynamic ratings, leakage, pressure drop and maximum pressure data.
   2. Indicate materials, construction, dimensions, and installation details.
E. Manufacturer's Installation Instructions: Submit for Fire and Combination Smoke and Fire Dampers.

1.4 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of access doors and test holes.
B. Operation and Maintenance Data: Submit for Combination Smoke and Fire Dampers.

1.5 QUALITY ASSURANCE

A. Dampers tested, rated and labeled in accordance with the latest UL requirements.
B. Damper pressure drop ratings based on tests and procedures performed in accordance with AMCA 500.
C. Perform Work in accordance with State and local standards.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum 3 years experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Protect dampers from damage to operating linkages and blades.
B. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly indicating manufacturer and material.
C. Storage: Store materials in a dry area indoor, protected from damage.
D. Handling: Handle and lift dampers in accordance with manufacturer's instructions. Protect materials and finishes during handling and installation to prevent damage.

1.8 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.9 COORDINATION

A. Coordinate Work where appropriate with building control Work.

1.10 WARRANTY

A. Section 23 05 00 "General Mechanical Requirements" for product warranties.

## PART 2 - PRODUCTS

2.1 BACK-DRAFT DAMPERS

A. Product Description: Multi-Blade, back-draft dampers: Parallel-action, gravity-balanced, Galvanized 16 gauge thick steel, or extruded aluminum. Blades, maximum 6-inch width, center pivoted, with felt or flexible vinyl sealed edges. Blades linked together in rattle-free manner with 90-degree stop, steel ball bearings, and plated steel pivot pin. Furnish dampers with adjustment device to permit setting for varying differential static pressure.

2.2 DUCT ACCESS DOORS

A. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated on Drawings.
B. Fabrication: Rigid and close fitting of galvanized steel with sealing gaskets and quick fastening locking devices. For insulated ductwork, furnish minimum 1-inch thick insulation with sheet metal cover.
   1. Less than 12 inches square, secure with sash locks.
   2. Up to 18 inches Square: Furnish two hinges and two sash locks.
   3. Up to 24 x 48 inches: Three hinges and two compression latches.
   4. Larger Sizes: Furnish additional hinge.
   5. Access panels with sheet metal screw fasteners are not acceptable.

2.3 VOLUME CONTROL DAMPERS

A. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated on Drawings.
B. Multi-Blade Damper: Fabricate of opposed blade pattern with maximum blade sizes 8- by 72-inch. Assemble center and edge crimped blades in prime coated or galvanized frame channel with suitable hardware.
C. End Bearings: Except in round ductwork 12 inches and smaller, furnish end bearings. On multiple blade dampers, furnish oil-impregnated nylon or sintered bronze bearings. Furnish closed end bearings on ducts having pressure classification over 2 inches wg.
D. Quadrants:
   1. Furnish locking, indicating quadrant regulators on single and multi-blade dampers.
   2. On insulated ducts mount quadrant regulators on standoff mounting brackets, bases, or adapters.
   3. Where rod lengths exceed 30 inches furnish regulator at both ends.

2.4 FLEXIBLE DUCT CONNECTIONS

A. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible.
B. Connector: Fabric crimped into metal edging strip.
   1. Fabric: UL listed fire-retardant neoprene coated woven glass fiber fabric conforming to NFPA 90A, minimum density 30 ounces per square yard.
   2. Net Fabric Width: Approximately 6 inches wide.
   3. Metal: 3-inch wide, 24 gauge galvanized steel.

2.5 DUCT TEST HOLES

A. Permanent Test Holes: Factory fabricated, air tight flanged fittings with screw cap. Furnish extended neck fittings to clear insulation.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verify rated walls are ready for fire damper installation.
B. Verify ducts and equipment installation are ready for accessories.
C. Check location of air outlets and inlets and make necessary adjustments in position to conform to architectural features, symmetry, and lighting arrangement.

3.2 INSTALLATION.

A. Install in accordance with NFPA 90A, and follow SMACNA HVAC Duct Construction Standards - Metal and Flexible. Refer to Section 23 31 00 "HVAC Ducts and Casings" for duct construction and pressure class.
B. Install Work in accordance with State and local standards.
C. Install back-draft dampers on exhaust fans or exhaust ducts nearest to outside and where indicated on Drawings.
D. Access Doors: Install access doors at the following locations and as indicated on Drawings:
   1. Before and after each duct mounted filter.
   2. Before and after each duct mounted coil.
   3. Before and after each duct mounted fan.
   4. Before and after each automatic control damper.
   5. Before and after each fire damper, smoke dampe,r or combination fire and smoke damper.
   6. Downstream of each VAV box.
   7. Install at locations for cleaning kitchen exhaust ductwork in accordance with NFPA 96.
E. Access Door Sizes: Install minimum 8- by 8-inch size for hand access, 18- by 18-inch size for shoulder access, and as indicated on Drawings. Review locations prior to fabrication.
   1. Mark access doors for fire and smoke dampers on outside surface, with minimum 1/2-inch high letters reading: FIRE/SMOKE DAMPER, SMOKE DAMPER, OR FIRE DAMPER.
F. Install temporary duct test holes and required for testing and balancing purposes. Cut or drill in ducts. Cap with neat patches, neoprene plugs, threaded plugs, or threaded or twist-on metal caps.
G. Install permanent duct test holes and required for testing and balancing purposes.

H. Install fire dampers, combination fire and smoke dampers,and smoke dampers at locations as indicated on Drawings. Install with required perimeter mounting angles, sleeves, breakaway duct connections, corrosion resistant springs, bearings, bushings and hinges.
   1. Install smoke dampers and combination smoke and fire dampers in accordance with NFPA 92A.
   2. Install dampers square and free from racking with blades running horizontally.
   3. Do not compress or stretch damper frame into duct or opening.
   4. Handle damper using sleeve or frame. Do not lift damper using blades, actuator, or jack shaft.
   5. Install bracing for multiple section assemblies to support assembly weight and to hold against system pressure. Install bracing as needed.

3.3 DEMONSTRATION

A. Demonstrate re-setting of fire dampers to Owner's representative.

END OF SECTION

# SECTION 23 34 00 - HVAC FANS

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Sidewalk propeller fans.
   2. Centrifugal square inline fans.
B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. American Bearing Manufacturers Association:
   1. ABMA 9 - Load Ratings and Fatigue Life for Ball Bearings.
   2. ABMA 11 - Load Ratings and Fatigue Life for Roller Bearings.
B. Air Movement and Control Association International, Inc.:
   1. AMCA 99 - Standards Handbook.
   2. AMCA 204 - Balance Quality and Vibration Levels for Fans.
   3. AMCA 210 - Laboratory Methods of Testing Fans for Aerodynamic Performance Rating.
   4. AMCA 300 - Reverberant Room Method for Sound Testing of Fans.
   5. AMCA 301 - Methods for Calculating Fan Sound Ratings from Laboratory Test Data.
C. American Refrigeration Institute:
   1. ARI 1060 - Air-to-Air Energy Recovery Ventilation Equipment Certification Equipment Program.
D. National Electrical Manufacturers Association:
   1. NEMA MG 1 - Motors and Generators.
   2. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
E. Underwriters Laboratories Inc.:
   1. UL 705 - Power Ventilators.

1.3 SUBMITTALS

A. Section 23 05 00 " General Mechanical Requirements."
B. Product Data: Submit data on each type of fan and include accessories, fan curves with specified operating point plotted, power, RPM, sound power levels for both fan inlet and outlet at rated capacity, electrical characteristics and connection requirements.
C. Manufacturer's Installation Instructions: Submit fan manufacturer instructions.
D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: Submit instructions for lubrication, motor and drive replacement, spare parts list, and wiring diagrams.

1.5 QUALITY ASSURANCE

A. Performance Ratings: Conform to AMCA 210 and bear AMCA Certified Rating Seal.
B. Sound Ratings: AMCA 301, tested to AMCA 300 ,and bear AMCA Certified Sound Rating Seal.
C. UL Compliance: UL listed and labeled, designed, manufactured, and tested in accordance with UL 705.
D. Balance Quality: Conform to AMCA 204.
E. Perform Work in accordance with State and local standards.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this section with minimum 3 years' experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Protect motors, shafts, and bearings from weather and construction dust.

1.8 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.9 WARRANTY

A. Section 23 05 00 "General Mechanical Requirements" for product warranties.

1.10 EXTRA MATERIALS

A. Furnish two sets of belts for each fan.

**PART 2 - PRODUCTS**

2.1 SIDEWALL PROPELLER FANS

A. Manufacturers:
1. Greenheck Corporation..
2. Loren Cook Company.
3. Substitutions: Section 23 05 00 "General Mechanical Requirements."
B. General Description:
1. Fan arrangement shall be exhaust.
2. Sidewall mounted applications.
3. Each fan shall bear a permanently affixed manufacturer's engraved metal nameplate containing the model number and individual serial number.

C. Wheel:
   1. Propeller constructed of cast aluminum tapered airfoil blades and cast aluminum hubs.
   2. Securely attached to motor shaft with a standard square key, set screw, and tapered bushing.
   3. Statically and dynamically balanced in accordance with AMCA Standard 204-05.
   4. The propeller and fan inlet will be meatched and shall have precise running tolerances for maximum performance and operating efficiency.

D. Motors:
   1. Electronically Commutated Motor:
      a. Motor Enclosure: Open drip proof.
      b. Motor to be a DC electronic commutation type motor (ECM) specially designed for fan application.
      c. Motors are permanently lubricated, heavy duty ball bearing type to match with the fanload and pre-wired to the specific voltage and phase.
      d. Internal motor circuitry to convert AC power supplied to the fan to DC power to operate the motor.
      e. Motor shall be speed controllable down to 20 percent of full speed (80 percent turndown). Speed shall be controlled by either apotentiometer dial mounted at the motor or by a 0-10 VDC signal.
      f. Motor shall be a minimum of 85 percent efficient at all speeds.

E. Drive Frame:
   1. Frames and panels shall be bolted construction.
   2. Drive fram assemblies and fan panels shall be galvanized steel or inted steel.
   3. Drive frame shall have formed channels and fan panels shall have pre-punched mounting holes, formed flanges, and a deep formed one-piece inlet venturi.

F. Options/Accessories:
   1. Damprs:
      a. Type: WD-320, Gravity.
      b. Prevents outside air from entering back into the building when fan is off.
      c. Balanced for minimal resistance to flow.
      d. Galvanized frames with pre-puched mounting holes.
   2. Discharge Diffusers:
      a. Constructed of heavy gauge galvanized steel frame and blades.
      b. Shall have pre-punch moutning flanges.
      c. Designed to mount to the interior end of the wall housing when used in supply configuration.
   3. Wall Housing:
      a. Fan panel will be mounted vertically drecting the air horizontally out of the building. Wall housing will be mounted in a manner that will not have any housing protruding outside the building. Motor and drives will be accessible from the interior of the building.
      b. Construct3ed of galvanized steel with heavy gauge mounting flanges and pre-punches mounting holds.
      c. Housing shall include OSHA approved motor guard.
      d. Reduces installation time and provides maximum installation flexibility.

4. Weather Hood:
   a. Shall shield wall opening and dampers from rain and snow.
   b. Material Type: Galvanized.
   c. Turndown Angle: 45 degrees.
   d. 1/2- by 1/2-inch weld wire birdscreen.

## 2.2 CENTRIFUGAL SQUARE INLINE FANS

A. Manufacturers:
   1. Greenheck Fan Corporation.
   2. Loren Cook Company.
   3. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements."

B. General Description:
   1. Base fan performance at standard conditions (density 0.075 pounds per cubed feet).
   2. Normal operating temperature up to 130 degrees F.
   3. Applications include intake, exhaust, return, or makeup air systems.
   4. Each fan shall bear a permanently affixed manufacturer's engraved mmetal nameplate containing the model number and individual serial number.

C. Fan Wheel:
   1. Backward inclined centrifugal type.
   2. Aluminum construction.
   3. Statically and dynamically balanced in accordance to AMCA Standard 204-05.
   4. The wheel cone and fan inlet will be matched and shall have precise running tolerances for maximum performance and operating efficiency.
   5. Single thickness blades are securely riveted or welded to a heavy gauge back plate and wheel cone.

D. Electronically Commutated Motor:
   1. Motor Enclosure: Open drip proof..
   2. Motor to be a DC Electronic Commutation Type Motor (ECM) specifically designed for fan applications. AC induction type motors are not acceptable. Examples of unacceptable motors are Shaded Pole, Permanent Split Capacitor (PSC), Split Phase, Capacitor Start, and 3-phase induction type motors.
   3. Motors are permanently lubricated, heavy duty ball bearing type to match with fan load and pre-wired to the specific voltage and phase.
   4. Internal motor circuitry to convert AC power supplied to the fan to DC power to operate the motor.
   5. Motor shall be speed controllable down to 20 percent of full speed (80 percent turndown). Speed shall be controlled by either a potentiometer dial mounted at the motor or by a 1-10 VDC signal.
   6. Motor shall be a minimum of 85 percent efficient at all speeds.

E. Housing/Cabinet Construction:
   1. Square design constructed of heavy gauge galvanized steel and shall include square duct mounting collars.
   2. Housing and bearing supports shall be constructed of heavy gauge bolted and welded steel construction to prevent vibration and to rigidly support the shaft and bearing assembly.
   3. Galvanized construction material

F. Housing Supports and Drive Frame:
   1. Housing supports are constructed of structural steel with formed flanges.
   2. Drive frame is welded steel which supports the motor.

G. Disconnect Switches:
   1. NEMA Rated: NEMA 1: Indoor application no water. Factory standard.
   2. Positive electrical shut-off.
   3. Wired from fan motor to junction box.

H. Duct Collars:
   1. Square design to provide a large discharge area.
   2. Inlet and discharge collars provide easy duct conection.

I. Access Panel: Two-sided access panels, permit easy access to all internal components.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify roof curbs are installed and dimensions are as instructed by manufacturer.

3.2 INSTALLATION

A. Secure roof fans with cadmium plated steel lag screws to roof curb.
B. Install backdraft dampers on inlet to roof exhaust fans.
C. Install safety screen where inlet or outlet is exposed.
D. Provide sheaves required for final air balance.

3.3 DEMONSTRATION

A. Demonstrate fan operation and maintenance procedures.

3.4 PROTECTION OF FINISHED WORK

A. Do not operate fans for until ductwork is clean, filters in place, bearings lubricated, and fan has been test run under observation.

END OF SECTION

# SECTION 23 37 00 - AIR OUTLETS AND INLETS

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Diffusers.
   2. Registers
   3. Grilles.
   4. Louvers.

B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. Air Movement and Control Association International, Inc.:
   1. AMCA 500 - Test Methods for Louvers, Dampers, and Shutters.

B. American Society of Heating, Refrigerating and Air-Conditioning Engineers:
   1. ASHRAE 70 - Method of Testing for Rating the Performance of Air Outlets and Inlets.

C. Sheet Metal and Air Conditioning Contractors:
   1. SMACNA - HVAC Duct Construction Standard - Metal and Flexible.

1.3 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechanical Requirements" for Submittal Procedures.

B. Product Data: Submit sizes, finish, and type of mounting. Submit schedule of outlets and inlets showing type, size, location, application, and noise level.

C. Test Reports: Rating of air outlet and inlet performance.

D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Closeout procedures.

B. Project Record Documents: Record actual locations of air outlets and inlets.

1.5 QUALITY ASSURANCE

A. Test and rate diffuser, register, and grille performance in accordance with ASHRAE 70.

B. Test and rate louver performance in accordance with AMCA 500.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum 3 years' documented experience.

1.7 WARRANTY

A. Section 01 70 00 "Execution and Closeout Requirements" for product warranties and product bonds.

## PART 2 - PRODUCTS

2.1 DIFFUSERS, GRILLES, AND REGISTERS

A. Manufacturers:
1. Nailor.
2. Titus.
3. Price.
4. Substitutions: Section 23 05 00 "General Mechanical Requirements."

2.2 LOUVERS

A. Manufacturers:
1. Cesco Products.
2. Greenheck Fan Corporation.
3. Pottorff.
4. Ruskin Company.
5. Substitutions: Section 23 05 00 "General Mechanical Requirements."

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify inlet and outlet locations.
B. Verify ceiling or wall systems are ready for installation.

3.2 INSTALLATION

A. Install diffusers to ductwork with airtight connection.
B. Install balancing dampers on duct take-off to diffusers, grilles, and registers, whether or not dampers are furnished as part of diffuser, grille, and register assembly.
C. Paint visible portion of ductwork behind air outlets and inlets matte black.
D. Do not locate air registers, diffusers or grilles in floors of toilet or bathing rooms.

3.3 INTERFACE WITH OTHER PRODUCTS

A. Check location of outlets and inlets and make necessary adjustments in position to conform to architectural features, symmetry, and lighting arrangement.

3.4 SCHEDULES

A. Refer to Drawings for all schedules.

END OF SECTION

# SECTION 23 81 26.20 - SPLIT-SYSTEM HEAT PUMPS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Air handling unit.
   2. Condensing unit.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 23 05 00 "General Maintenance Requirements."
   3. Division 26 Electrical.

### 1.2 REFERENCES

A. Air-Conditioning and Refrigeration Institute:
   1. ARI 210/240 - Unitary Air-Conditioning and Air-Source Heat Pump Equipment.
   2. ARI 270 - Sound Rating of Outdoor Unitary Equipment.
   3. ARI 340/360 - Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment.

B. American Society of Heating, Refrigerating and Air-Conditioning Engineers:
   1. ASHRAE 52.1 - Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter.

C. National Fire Protection Association:
   1. NFPA 90A - Standard for the Installation of Air Conditioning and Ventilating Systems.

### 1.3 SUBMITTALS

A. Refer to Division 01 and Section 23 05 00 “General Mechanical Requirements” for submittals.

B. Product Data: Submit data indicating:
   1. Cooling and heating capacities.
   2. Dimensions.
   3. Weights.
   4. Rough-in connections and connection requirements.
   5. Duct connections.
   6. Electrical requirements with electrical characteristics and connection requirements.
   7. Controls.
   8. Accessories.

C. Manufacturer's Installation Instructions: Submit assembly, support details, connection requirements, and include start-up instructions.

D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of controls installed remotely from units.
B. Operation and Maintenance Data: Submit manufacturer's descriptive literature, operating instructions, installation instructions, and maintenance and repair data.

1.5 QUALITY ASSURANCE

A. Cooling Capacity: Rate in accordance with ARI 210/240.
B. Sound Rating: Measure in accordance with ARI 270.
C. Insulation and adhesives: Meet requirements of NFPA 90A.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Accept units and components on site in factory protective containers, with factory shipping skids and lifting lugs. Inspect for damage.
B. Protect units from weather and construction traffic by storing in dry, roofed location.

1.8 WARRANTY

A. Furnish 5 year manufacturer's warranty for compressors.

**PART 2 - PRODUCTS**

2.1 MINI SPLIT SYSTEM AIR CONDITIONING UNITS

A. Manufacturers:
   1. Carrier Corp.
   2. Daikin.
   3. Mitsubishi Electric.
   4. L.G.
   5. Samsung.
   6. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements."
B. Wall-Mounted Indoor Unit:
   1. Indoor unit shall be factory assembled, wired, and run tested. Contained within the unit shall be all factory wiring, piping, control circuit board and fan motor. The unit shall have a self-diagnostic function, 3-minute time delay mechanism, an auto restart function, an emergency operation function, and a test run switch. Indoor unit and refrigerant pipes will be charged with dry air instead of refrigerant, before shipment from factory.

2. Unit Cabinet:
   a. Casing shall have a white finish.
   b. Multi-directional drain and refrigerant piping offering four directions for refrigerant piping and two directions for draining shall be standard.
   c. There shall be a separate back plate which secures the unit firmly to the wall.
3. Fan:
   a. Evaporator fan shall be an assembly with a line-flow fan directly driven by a single motor.
   b. Fan shall be statically and dynamically balanced and run on a motor with permanently lubricated bearings.
   c. A manual adjustable guide vane shall be provided with ability to change the airflow from side to side (left to right).
   d. A motorized air sweep flow louver shall provide an automatic change in airflow by directing the air up and down to provide for uniform air distribution.
   e. Indoor fan shall consist of three speeds: high, medium, and low.
4. Filter: Return air shall be filtered by means of an easily removable washable filter.
5. Coil:
   a. Evaporator coil shall be of nonferrous construction with smooth plate fins on copper tubing.
   b. Tubing shall have inner grooves for high efficiency heat exchange.
   c. All tube joints shall be brazed with phos copper or silver alloy.
   d. Coils shall be pressure tested at the factory.
   e. A condensate pan and drain shall be provided under the coil.
6. Electrical:
   a. Unit shall be powered from the outdoor unit.
   b. Indoor unit shall not have any supplemental electrical heat elements.
7. Control: Provide 7-day electronic programmable WIFI thermostat.
   a. This unit shall have a wireless controller to perform input functions necessary to operate the system.
   b. Controller shall consist of a power on/off switch, model selector, temperature setting, time control, fan speed select, and auto vane selector.
   c. Temperature changes shall be by 2 degrees F increments with a range of 59 to 89 degrees F.
   d. Microprocessor located in the indoor unit shall have the capability of sensing return air temperature and indoor coil temperature, receiving and processing commands from the wireless controller, providing emergency operation, and controlling the outdoor unit.
   e. System shall be capable of automatic restart when power is restored after power interruption.
   f. Control system shall control the continued operation of the air sweep louvers, as well as provide on/off and system/mode function switching.

C. Outdoor Unit:
1. Outdoor unit is designed specifically for use with the indoor units. The unit must have a powder coating finish. Outdoor unit shall be completely factory assembled, piped, and wired. Each unit must be run tested at the factory.
2. Unit Cabinet: casing shall be fabricated of galvanized steel, bonderized, and finished with a powder coating baked enamel. Provide with manufacturer's hail guard.
3. Fan:
   a. Unit shall be furnished with a direct drive propeller-type fan.
   b. Motor shall have inherent protection by permanently lubricated bearings.

c. Fan motor shall be mounted for quiet operation.
d. Fan shall be provided with a raised guard to prevent contact with moving parts.
e. Outdoor unit shall have a horizontal discharge airflow.

4. Coil:
   a. Condenser coil shall be nonferrous construction with lanced or corrugated plate fins on copper tubing.
   b. Coil shall be protected with an integral metal guard.
   c. Refrigerant flow from the condenser shall be controlled by means of a metering orifice.
   d. Provide with either a factory installed or field installed hail screen.
5. Compressor:
   a. Compressor shall be a high-performance rotary.
   b. Outdoor unit shall have an accumulator.
   c. Compressor will be equipped with an in internal thermal overload.
   d. Outdoor unit must have the ability to operate with a maximum height difference of 25 feet and have refrigerant tubing length of 49 feet between indoor and outdoor units with the need for line size changes, traps, or additional oil.
   e. Compressor shall be mounted to avoid the transmission of vibration.
6. Electrical:
   a. Unit electrical power shall be as scheduled.
   b. Outdoor unit shall be controlled by the microprocessor located in the indoor unit.

2.2 ELECTRICAL CHARACTERISTICS AND COMPONENTS

A. Electrical Characteristics: In accordance with Division 26 Electrical.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verify piping rough-in is at correct location.
B. Verify electrical rough-in is at correct location.

3.2 INSTALLATION

A. Install refrigerant piping from unit to remote condensing unit. Install refrigerant specialties furnished with unit.
B. Pipe condensate from drain pan to condensate drainage system. Refer to Drawings.
C. Install accessories furnished loose for field mounting.
D. Install electrical devices furnished loose for field mounting.
E. Install control wiring between unit control panel and field mounted control devices.

3.3 CLEANING

A. After construction is completed, clean exposed surfaces of units.
B. Vacuum clean coils and inside of unit cabinet.
C. Touch-up marred or scratched surfaces of factory finished cabinets using finish materials furnished by manufacturer.

3.4 DEMONSTRATION

A. Demonstrate unit operation and maintenance.
B. Furnish services of manufacturer's technical representative for 2 hours to instruct Owner's personnel in operation and maintenance of units. Schedule training with Owner, provide at least 7 days notice of training date.

3.5 PROTECTION OF FINISHED WORK

A. Protect finished surfaces of cabinets with protective covers during remainder of construction.

END OF SECTION

# SECTION 23 82 39 - UNIT HEATERS

## PART 1 - GENERAL

1.1 SUMMARY

A. Section includes suspended heaters with electric-resistance heating coils.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. American Society of Heating, Refrigerating and Air-Conditioning Engineers:
   1. ASHRAE 90.1 – Energy Standard for Buildings Except Low-Rise Residential Buildings.
   2. ASHRAE 33: Method of Testing Forced Circulation Air Cooling and Heating Coils.
B. National Fire Protection Association:
   1. NFPA 70: National Electrical Code.
   2. NFPA 90A: Standard for the Installation of Air Conditioning and Ventilating Systems.
   3. NFPA 90B: Standard for the Installation of Warm Air Heating and Air Conditioning Systems.
C. UL LLC:
   1. UL 823: Standard for Electric Heaters for Use in Hazardous (Classified) Locations.
   2. UL 1995: Heating and Cooling Equipment.
   3. UL 2021: Fixed and Location-Dedicated Electric Room Heaters.

1.3 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechanical Requirements" for submittals.
B. Product Data: Submit manufacturer's literature and data indicating rated capacities, weights, accessories, electrical nameplate data, and wiring diagrams.
C. Manufacturer's Installation Instructions: Submit/indicate rigging and assembly.
D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: Submit manufacturer's descriptive literature, operating instructions, maintenance and repair data, and parts listing.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with State and local standards.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Accept heaters and controls on site in factory packaging. Inspect for damage.

1.8 FIELD MEASURMENTS

A. Verify field measurements prior to fabrication.

**PART 2 - PRODUCTS**

2.1 ELECTRIC RESISTANCE CEILING HEATERS

A. Manufacturers:
   1. Reznor.
   2. Markel.
   3. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements" for substitutions.
B. Self-contained, packaged, factory assembled, prewired unit consisting of cabinet, supply fan, heater exchanger, controls and accessories:
   1. Discharge Louvers: Flat ribbon wire, stamped-steel, or extruded aluminum grille.
   2. Control Voltage: 24 Volt, 60 Hertz.
   3. Location: Suspended mount.
   4. Heat ON indicator light.
C. Cabinet: Galvanized steel, corrosion resistant baked enamel finish, easily removed and secured access panels, insulated or double panel construction, constructed to fit into a ceiling.
D. Supply Fan: Propeller type with direct drive.
E. Heat Exchanger: Nickel-chromium-wire heating element enclosed in metallic sheath mechanically bonded into fins, or stainless steel tubular elements with aluminum fins, with automatic, integrated high-temperature cutout and overheat reset sensor. Element supports shall eliminate thermal expansion noise.
F. Controls:
   1. Thermostat integral to heater.
G. Motor Type: Permanently lubricated, totally enclosed, thermally protected, continuous duty.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas to receive unit heaters for compliance with requirements for installation tolerances and other conditions affecting performance.

3.2 INSTALLATION

A. Install units in accordance with NFPA 90B and NFPA 70.
B. Provide hangers and supports for suspended units. Refer Section 23 05 29 "Hangers and Supports for HVAC Piping and Equipment."
C. Provide operating controls.
D. Provide connection to electrical power systems. Refer to Division 26.

END OF SECTION

# SECTION 26 05 00 - BASIC ELECTRICAL METHODS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REQUIREMENTS OF REGULATORY AGENCIES AND STANDARDS

A. Regulatory Agencies: Installation, materials, equipment and Workmanship shall conform to the applicable provisions of the following:
B. National Electrical Code (NEC).
C. National Electrical Safety Code (NESC).
D. Terms and conditions of the electrical utility and other authorities having lawful jurisdiction pertaining to the Work required.
E. All temperature control wiring and associated conduit and boxes, shall be provided under other Sections of the Specifications. All power and control wiring, not identified under Divisions 22 and 23, shall be provided under Division 26.
F. The Work covered by Division 26 of the Specifications includes the furnishing of all materials, labor, transportation, tools, permits, and fees for the complete installation of all electrical Work required in the Contract Drawings.
G. In the event that additional or special construction is required, Contractor is responsible for providing all material and equipment which are usually furnished with such construction in order to complete the installation, whether indicated or not.
H. Contractor shall familiarize himself with the existing conditions of the Site and advise Engineer of any discrepancy or conflict prior to bidding.
I. Contractor shall be responsible for all permits, fees, and licenses required for the Project. All cost of such permits or fees shall be included in the bid.
J. All equipment and material shall be installed in accordance with applicable manufacturer's recommendations and standards.
K. Install sleeves, sealant pans, and roof penetrations as required for the installation of the electrical Work. All such Work is subject to the approval of Engineer.
L. Contractor shall be responsible for coordinating with the utility service provider to verify all locations, routing, equipment and labor that will be furnished as a part of this Contract.
M. Any fees or charges associated with delivering permanent power for the Project shall be included in Contractor's bid.

### 1.3 SUBMITTALS

A. The intent of this Section is to give general submittal information; refer to specific submittal information in the subsequent Mechanical Sections.


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B. Within 10 days after award of the Contract, and before orders are placed, Contractor shall submit specific information on list of equipment and principal materials specified. Contractor shall indicate and/or provide names of manufacturers, catalog and model numbers, cut sheets, and such other supplementary information as necessary for evaluation. Minimum of six copies, or as directed by Engineer, of each shall be submitted and shall include all items mentioned by model number and/or manufacturer's name in the Specifications or in schedules on the Drawings.

C. Requirements for Each Submittal:
   1. Bear a dated stamp or specific written indication that Contractor has reviewed and approved all submittal prior to submission to Engineer.
   2. Have all information deleted by Contractor that pertains to the means and methods of construction or to fabrication, assembly, installation, or erection (approval by Engineer shall not extend to these areas unless specifically noted by Engineer).
   3. Be clearly and SPECIFICALLY marked as to which specific piece of equipment is being submitted, by use of a permanent marker, stamp, etc., so as to distinguish it from other pieces of equipment that may occur on the same page.
   4. Be clearly marked as to which available options are being submitted that are associated with a piece of equipment.
   5. Be complete with respect to quantities, dimensions, specific performance, materials, and similar data to enable Engineer to review the proposed equipment.

D. Omission by Contractor of any of the above requirements or submittals will subject submittal to automatic rejection without review.

E. Any submittals received by Engineer that were not requested shall be returned without review of any kind.

## PART 2 - PRODUCTS

### 2.1 EQUIPMENT REQUIREMENTS

A. The electrical requirements for equipment specified or indicated on the Drawings are based on information available at the time of design. If equipment furnished for installation has electrical requirements other than indicated on the Electrical Drawings, Contractor shall make any required changes to wire and conduit size, controls, overcurrent protection, and installation as required to accommodate the equipment supplied, without additional charge to Owner. The complete responsibility and costs for such adjustments shall be assigned to the respective Section of this Specification under which the equipment is furnished.

### 2.2 MATERIALS

A. All similar materials and equipment shall be the product of the same manufacturer unless specified otherwise.

B. Materials and equipment shall be the standard products of manufacturers regularly engaged in the production of such material and shall be the manufacturer's current and standard design.

C. Altitude: Equipment affected by altitude shall perform satisfactorily for the function intended at the altitude of the Project Site.

D. Detectable Warning Tape: Acid and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, minimum 6-inch-wide and 4 mils thick, continuously inscribed with a description of utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inch deep; colored as follows:
   1. Red: Electric.
   2. Yellow: Gas, oil, steam, and dangerous materials.
   3. Orange: Telephone and other communications.
   4. Blue: Water systems.
   5. Green: Sewer systems.

E. Backfill Material:
   1. Material 4 inches below and 12 inches above pipes and conduit shall be natural or manufactured sand complying to ASTM C33.
   2. Material more than 12 inches above pipes and conduits shall be sand indicated above or native fill free of rock or gravel larger than 3/8-inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.

## PART 3 - EXECUTION

3.1 GENERAL

A. Fabrication, erection, and installation of the complete electrical system shall be done in accordance with accepted good practice by qualified personnel experienced in such Work and shall proceed in an orderly manner so as not to impede the progress of the Project. Electrical Contractor shall check all areas and surfaces where electrical equipment material is to be installed, removed, or relocated and report any unsatisfactory conditions before starting Work. Commencement of Work signifies this Contractor's acceptance of existing conditions. In the acceptance or rejection of the finished installation, no allowance will be made for lack of skill on the part of Workers. Surfaces requiring coatings will be completed prior to installation of any electrical Work on these surfaces.

B. The Electrical Drawings are diagrammatic. The installation requirements shall be carefully coordinated with structural, architectural, and mechanical conditions and shall be adjusted to avoid conflict.

C. All Work shall be concealed in walls, ceilings, and chases unless specifically noted to be exposed or otherwise approved.

D. The locations of electrical equipment are approximate and are not intended to convey the exact details and mounting of location of outlets, equipment, and other items. Exact locations are to be field determined by actual measurements.

E. The location height and projection of fixtures illuminating signs or special features shall be approved by Engineer prior to installation.

F. Contractor shall coordinate the location of all exterior fixtures with architectural Drawings and Specifications.

G. Consult architectural Drawings to determine wall finishes and locations of wall-mounted equipment, countertop splashes, and similar items to avoid conflict with electrical equipment. At locations where surface or pendant mounted light fixtures are noted, provide for all necessary framing channels, pendants, chains, canopies, and other hardware as required for a complete and operable system.

H. Protect subgrades and foundation soils against freezing temperatures or frost. Provide protective insulating materials as necessary.

I. Excavation for Pipe and Conduit:
   1. Excavate trenches to indicated gradients, lines, depths, and elevations.
   2. Excavate trenches to uniform widths to provide a Working clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit, unless otherwise indicated.
   3. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
      a. For pipes and conduit less than 6 inches in nominal diameter and flat-bottomed, multiple-duct conduit units, hand excavate trench bottoms and support pipe and conduit on an undisturbed subgrade.
      b. For pipes and conduit 6 inches or larger in nominal diameter, shape bottom of trench to support bottom 90 degrees of pipe circumference. Fill depressions with tamped sand backfill.
      c. Excavate trenches 4 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.
   4. Place backfill and fill materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
   5. Compact soil to not less than the following percentages of maximum dry unit weight according to ASTM D698:
      a. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill material at 95 percent.
      b. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill material at 92 percent.
      c. Under lawn or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill material at 85 percent.
   6. Install detectable warning tape above conduits and pipe, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.
   7. Protection:
      a. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
      b. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
         1) Scarify or remove and replace soil material to depth as directed by Engineer; reshape and recompact.
      c. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
         1) Restore appearance, quality, and condition of finished surfacing to match adjacent Work, and eliminate evidence of restoration to the greatest extent possible.

8. Disposal of Surplus and Waste Materials:
   a. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property unless otherwise directed by Owner.
   b. Repair: Any damage to shrubs, grass or structures shall be repaired to previous condition by Contractor at no additional expense to Owner.

J. It shall be the responsibility of Division 26 Contractor to provide for all disconnecting and motor control devices for all equipment. Contractor shall coordinate to determine voltage, phase, and configurations. Any changes necessary to coordinate these items between Divisions 22, 23, and 26 shall be considered part of this Contract.

K. Division 26 Contractor shall be responsible for providing for all power requirements associated with the mechanical systems including power, control devices, smoke dampers, etc. Refer to Division 22 and 23 Drawings for locations and requirements. Connect all smoke dampers to the fire alarm control panel.

## 3.2 PERFORMANCE TESTS

A. Thoroughly test all control circuits, fixtures, services, and all circuits for proper operating condition and freedom from grounds and short circuits before acceptance is requested. All equipment, appliances, and devices shall be operated under load conditions.

B. After the interior wiring system installation is complete conduct operating tests for approval. When requested, test all the wire, cable, devices, and equipment after installation, to assure that all material continues to possess all the original characteristics as required by governing codes and standards listed in these Specifications.

C. After motor operation has been verified make voltage readings at all panelboards and starters. Based on these readings, make final adjustments of primary taps on all transformers in the building as directed, or coordinate with the utility proper building voltage.

D. Perform such other tests as required by other Sections of these Specifications or as requested to prove acceptability.

E. Furnish all instruments and labor for testing.

F. All material installed shall be listed, inspected, and approved by a nationally accepted testing laboratory such as UL and/or ETL. All material shall bear the UL or ETL label where available.

## 3.3 SUBMITTAL AND APPROVAL OF MATERIALS

A. All requirements for submittals shall comply with the applicable provisions included in the individual Specification Sections.

B. Unless identified as a sole source item, the listing of product manufacturers, catalog numbers, etc., on Drawings is intended to establish a standard of quality of the product. It is the responsibility of Contractor to review all items he intends to submit. If equipment other than that indicated on Drawings is proposed by Contractor, the information will be reviewed at the time of the submission of the submittal.

END OF SECTION

# SECTION 26 05 13 - BUILDING WIRE AND CABLE

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Building wire and cable.
   2. Wiring connectors and connections.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 01 40 00 "Quality Requirements" for requirements for references and standards.
   3. Section 26 05 53 "Electrical Identification."

1.2 REFERENCES

A. NECA Standard of Installation (National Electrical Contractors Association).
B. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems (International Electrical Testing Association).
C. NFPA 70 - National Electrical Code.

1.3 SUBMITTALS FOR REVIEW

A. Refer to Section 01 33 00 "Submittal Procedures" for procedures for Submittals.
B. Product Data: Provide for each cable assembly type.

1.4 SUBMITTALS FOR INFORMATION

A. Refer to Section 01 33 00 "Submittal Procedures" for procedures for Submittals.
B. Test Reports: Indicate procedures and values obtained.
C. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements.

1.5 SUBMITTALS AT PROJECT CLOSEOUT

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for procedures for submittals.
B. Project Record Documents: Record actual locations of components and circuits.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' documented experience.

1.7 REGULATORY REQUIREMENTS

A. Conform to NFPA 70.
B. Furnish products listed and classified by UL as suitable for the purpose specified and indicated.

1.8 FIELD SAMPLES

A. Provide under provisions of Section 01 40 00 "Quality Requirements."

1.9 PROJECT CONDITIONS

A. Refer to Section 01 30 00 "Administrative Requirements."
B. Verify that field measurements are as indicated.
C. Conductor sizes are based on copper.
D. Wire and cable routing indicated is approximate unless dimensioned.

1.10 COORDINATION

A. Coordinate Work under provisions of Section 01 30 00 "Administrative Requirements."
B. Where wire and cable destination is indicated and routing is not shown, determine exact routing and lengths required.

**PART 2 - PRODUCTS**

2.1 BUILDING WIRE

A. Manufacturers:
   1. American Cable.
   2. Houston Wire and Cable.
   3. Southwire.
   4. Substitutions: Refer to Section 01 60 00 "Product Requirements."
B. Description: Single conductor insulated wire.
C. Conductor: Copper.
D. Insulation Voltage Rating: 600 volts.
E. Insulation: NFPA 70, Type indicated herein.
F. MC Cable: Shall not be utilized on this Project.

2.2 WIRING CONNECTORS

A. Split Bolt Connectors:
   1. Buchanan.
   2. Burndy.
   3. Ilsco.
   4. Substitutions: Refer to Section 01 60 00 "Product Requirements."

B. Solderless Pressure Connectors:
   1. Buchanan.
   2. Burndy.
   3. Ilsco.
   4. Substitutions: Refer to Section 01 60 00 "Product Requirements."
C. Spring Wire Connectors:
   1. Ideal.
   2. Substitutions: Refer to Section 01 60 00 "Product Requirements."
D. Compression Connectors:
   1. Buchanan.
   2. Burndy.
   3. Ilsco.
   4. Substitutions: Refer to Section 01 60 00 "Product Requirements."

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Refer to Section 01 30 00 "Administrative Requirements" for verification of existing conditions before starting Work.
B. Verify that interior of building has been protected from weather.
C. Verify that mechanical Work likely to damage wire and cable has been completed.
D. Verify that raceway installation is complete and supported.

### 3.2 PREPARATION

A. Completely and thoroughly swab raceway before installing wire.

### 3.3 WIRING METHODS

A. Concealed Dry Interior Locations: Use only building wire, Type THHN/THWN insulation, in raceway.
B. Exposed Dry Interior Locations: Use only building wire, Type THHN/THWN insulation, in raceway.
C. Above Accessible Ceilings: Use only building wire, Type THHN/THWN insulation, in raceway.
D. Wet or Damp Interior Locations: Use only building wire, Type THHN/THWN insulation, in raceway.
E. Exterior Locations: Use only building wire, Type THHN/THWN insulation, in raceway.
F. Use wiring methods indicated.

### 3.4 INSTALLATION

A. Refer to Section 01 40 00 "Quality Requirements" for manufacturer's instructions.
B. Route wire and cable as required to meet Project Conditions.
C. Install cable in accordance with the NECA "Standard of Installation."
D. Use solid conductor for feeders and branch circuits 10 AWG and smaller.

E. Use stranded conductors for control circuits.
F. Use conductor not smaller than 12 AWG for power and lighting circuits with the exception of premanufactured fixture whips, listed for such use and not exceeding 6 feet in length.
G. Use conductor not smaller than 14 AWG for control circuits.
H. Use 10 AWG conductors for 20 ampere, 120 volt branch circuits longer than 100 feet and as indicated on the Drawings.
I. Install all conductors in conduit.
J. Pull all conductors into raceway at same time.
K. Use suitable wire pulling lubricant for building wire 4 AWG and larger.
L. Protect exposed cable from damage.
M. All cables shall be neatly supported.
N. Use suitable cable fittings and connectors.
O. Neatly train and lace wiring inside boxes, equipment, and panelboards.
P. Clean conductor surfaces before installing lugs and connectors.
Q. Make splices, taps, and terminations to carry full ampacity of conductors with no perceptible temperature rise.
R. Use split bolt connectors for copper conductor splices and taps, 6 AWG and larger. Tape uninsulated conductors and connector with electrical tape to 150 percent of insulation rating of conductor.
S. Use solderless pressure connectors with insulating covers for copper conductor splices and taps, 8 AWG and smaller.
T. Use insulated spring wire connectors with plastic caps for copper conductor splices and taps, 10 AWG and smaller.
U. Identify and color code wire and cable under provisions of Section 26 05 53 "Electrical Identification." Identify each conductor with its circuit number or other designation indicated.
V. The number of conductors in each conduit run shall be limited to the requirements as indicated on the Drawings and indicated in Article 310 of the National Electrical Code.

## 3.5 FIELD QUALITY CONTROL

A. Refer to Section 01 40 00 "Quality Requirements" for field inspection, testing, and adjusting.
B. Inspect and test in accordance with NETA ATS, except Section 4.
C. Perform inspections and tests listed in NETA ATS, Section 7.3.1.

END OF SECTION

# SECTION 26 05 19 - EQUIPMENT WIRING SYSTEMS

## PART 1 - GENERAL

1.1 SUMMARY

A. Section includes basic electrical connections to equipment specified under other Sections.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 26 05 00 "Basic Electrical Methods."

1.2 REFERENCES

A. NEMA WD 1 - General Purpose Wiring Devices.
B. NEMA WD 6 - Wiring Device Configurations.
C. ANSI/NFPA 70 - National Electrical Code.

1.3 SUBMITTALS

A. Submit under provisions of Section 01 33 00 "Submittal Procedures."
B. Product Data: Provide wiring device manufacturer's catalog information showing dimensions, configurations, and construction.
C. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, installation, and starting of product.

1.4 REGULATORY REQUIREMENTS

A. Conform to requirements of ANSI/NFPA 70.
B. Furnish products listed and classified by UL as suitable for purpose specified and shown.

1.5 COORDINATION

A. Coordinate Work under provisions of Section 01 30 00 "Submittal Procedures."
B. Obtain and review Shop Drawings, product data, and manufacturer's instructions for equipment furnished under other Sections.
C. Determine connection locations and requirements.
D. Sequence rough-in of electrical connections to coordinate with installation schedule for equipment.
E. Sequence electrical connections to coordinate with startup schedule for equipment.

## PART 2 - PRODUCTS

2.1 CORDS AND CAPS

A. Attachment Plug Construction: Conform to NEMA WD 1.
B. Configuration: NEMA WD 6; match receptacle configuration at outlet provided for equipment.

C. Cord Construction: ANSI/NFPA 70, multiconductor flexible cord with identified equipment grounding conductor, suitable for use in damp locations.
D. Size: Suitable for connected load of equipment, length of cord, and rating of branch circuit overcurrent protection.
E. Division 26 Contractor shall be responsible for providing matching cord/receptacle for all equipment not furnished with such equipment.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Verify conditions under provisions of Section 01 30 00 "Submittal Procedures."
B. Verify that equipment is ready for electrical connection, wiring, and energization.

### 3.2 ELECTRICAL CONNECTIONS

A. Make electrical connections in accordance with equipment manufacturer's instructions.
B. Make conduit connections to equipment using flexible conduit. Use liquidtight flexible conduit with watertight connectors in damp or wet locations.
C. Make wiring connections using wire and cable with insulation suitable for temperatures encountered in heat producing equipment.
D. Provide receptacle outlet where connection with attachment plug is indicated. Provide cord and cap where field-supplied attachment plug is indicated.
E. Provide suitable strain-relief clamps and fittings for cord connections at outlet boxes and equipment connection boxes.
F. Install disconnect switches, controllers, control stations, and control devices as indicated.
G. Modify equipment control wiring with terminal block jumpers as indicated.
H. Provide interconnecting conduit and wiring between devices and equipment where indicated.
I. Check and modify phase connections as required for proper motor rotation.
J. Provide power to equipment only after equipment supplier verifies acceptance to receive and approves.
K. Contractor shall coordinate with all equipment to verify exact power and control wiring as required to properly serve equipment.

END OF SECTION

# SECTION 26 05 26 - GROUNDING AND BONDING

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Rod electrodes.
   2. Mechanical connectors.
   3. Exothermic connections.
   4. Wire.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 01 40 00 "Quality Requirements" for requirements for references and standards.

1.2 REFERENCES

A. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems (International Electrical Testing Association).
B. NFPA 70 - National Electrical Code.

1.3 GROUNDING SYSTEM DESCRIPTION

A. Metal underground water pipe.
B. Metal frame of the building.
C. Rod electrodes.

1.4 PERFORMANCE REQUIREMENTS

A. Grounding System Maximum Resistance: 10 ohms.

1.5 SUBMITTALS FOR REVIEW

A. Refer to Section 01 33 00 "Submittal Procedures."
B. Product Data: Provide for grounding electrodes and connections.

1.6 SUBMITTALS FOR CLOSEOUT

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for procedures for Submittals.
B. Project Record Documents: Record actual locations of components and grounding electrodes.
C. Certificate of Compliance: Indicate approval of installation by authority having jurisdiction.

1.7 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' documented experience, and with service facilities within 100 miles of Project.

1.8 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.
B. Products: Listed and classified by UL as suitable for the purpose specified and indicated.

## PART 2 - PRODUCTS

2.1 ROD ELECTRODES

A. Material: Copper.
B. Diameter: 3/4-inch.
C. Length: 10 feet.

2.2 MECHANICAL CONNECTORS

A. Description: In lieu of exothermic connections, high compression type as manufactured by Burndy using the 12 ton Hy-Ground series.

2.3 EXOTHERMIC CONNECTIONS

A. Manufacturers: Cadweld.

2.4 WIRE

A. Material: Stranded copper.
B. Grounding Electrode Conductor: Minimum size to meet NFPA 70 requirements or as indicated on the Drawings.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Refer to Section 01 30 00 "Administrative Requirements" for verification of existing conditions prior to beginning Work.
B. Verify that final backfill and compaction has been completed before driving rod electrodes.

3.2 INSTALLATION

A. Refer to Section 01 40 00 "Quality Requirements" for manufacturer's instructions.
B. Install rod electrodes. Install additional rod electrodes as required to achieve a resistance to ground of 10 ohms or less. Rods shall be installed with a minimum separation of 6 feet.
C. Provide bonding to meet Regulatory Requirements.

D. Bond together metal siding not attached to grounded structure; bond to ground.
E. Equipment Grounding Conductor: Provide separate, insulated conductor within each feeder and branch circuit raceway. Terminate each end on suitable lug, bus, or bushing.
F. Grounding Electrode System: The new grounding electrode system shall consist of the common bonding of building steel, underground steel water piping and supplemental ground rods, concrete re-enforcing bar, as detailed on the Drawings.
G. Provide proper bonding of the electrical system's grounded conductor (neutral) and the grounding electrode system sized in accordance with NEC Article 250. This bonding shall occur at all locations where there are separately derived systems.

3.3 FIELD QUALITY CONTROL

A. Refer to Section 01 40 00 "Quality Requirements" for field inspection, testing, and adjusting.
B. Inspect and test in accordance with NETA ATS, except Section 4.
C. Perform inspections and tests listed in NETA ATS, Section 7.13.

END OF SECTION

# SECTION 26 05 29 - SUPPORTING DEVICES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Supports for conduit and equipment.
   2. Anchors and fasteners.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. NECA - National Electrical Contractors Association.
B. NFPA 70 - National Electrical Code.

1.3 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.
B. Furnish products listed and classified by UL as suitable for purpose specified and shown.

## PART 2 - PRODUCTS

2.1 SUPPORTS

A. Provide materials, sizes, and types of anchors, fasteners and supports to carry the loads of equipment and conduit. Consider weight of wire in conduit when selecting products.

2.2 ANCHORS AND FASTENERS

A. Concrete Structural Elements: Use expansion anchors, powder actuated anchors, and preset inserts.
B. Steel Structural Elements: Use beam clamps, spring steel clips, and steel ramset fasteners.
C. Concrete Surfaces: Use self-drilling anchors and expansion anchors.
D. Sheet Metal: Use sheet metal screws.
E. Wood Elements: Use wood screws.
F. Roof Support/Jacks: Advanced supports products # SS1000A or approved equal.

2.3 MATERIALS AND FINISHES

A. Provide adequate corrosion resistance.

## PART 3 - EXECUTION

3.1 INSTALLATION

A. Install products in accordance with manufacturer's instructions.
B. Provide anchors, fasteners, and supports in accordance with NECA "Standard of Installation."
C. Do not fasten supports to pipes, ducts, mechanical equipment, and conduit.
D. Obtain permission from Engineer before drilling or cutting structural members.
E. Fabricate supports from structural steel as indicated on drawings. Rigidly weld members or use hexagon head bolts to present neat appearance with adequate strength and rigidity. Use lock washers under all nuts.
F. Install surface-mounted cabinets and panelboards with minimum of four anchors.
G. In wet and damp locations, use steel channel supports to stand cabinets and panelboards 1 inch off wall.
H. Install conduit supports a maximum spacing specified in the NEC.

END OF SECTION


PACKET 7.475 September 12, 2023
PACKET 11.477 November 14, 2023

# SECTION 26 05 33 - CONDUIT

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Metal conduit.
   2. Flexible metal conduit.
   3. Liquidtight flexible metal conduit.
   4. Electrical metallic tubing.
   5. Fittings and conduit bodies.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 26 05 33.16 "Boxes."
   3. Section 26 05 53 "Electrical Identification."

1.2 REFERENCES

A. ANSI C80.1 - Rigid Steel Conduit, Zinc Coated.
B. ANSI C80.3 - Electrical Metallic Tubing, Zinc Coated.
C. ANSI/NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies.
D. NECA "Standard of Installation."
E. NEMA TC 3 - PVC Fittings for Use with Rigid PVC Conduit and Tubing.
F. NFPA 70 - National Electrical Code.

1.3 DESIGN REQUIREMENTS

A. Conduit Size: NFPA 70.

1.4 SUBMITTALS

A. Submit under provisions of Section 01 33 00 "Submittal Procedures."
B. Product Data: Provide for metallic conduit, flexible metal conduit, liquidtight flexible metal conduit, nonmetallic conduit, fittings and conduit bodies.

1.5 PROJECT RECORD DOCUMENTS

A. Submit under provisions of Section 01 70 00 "Execution and Closeout Requirements."
B. Accurately record actual routing of conduits.

1.6 REGULATORY REQUIREMENTS

A. Conform to requirements of ANSI/NFPA 70.
B. Furnish products listed and classified by UL as suitable for purpose specified and shown.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, protect, and handle products to site under provisions of Section 01 60 00 "Product Requirements."
B. Accept conduit on site. Inspect for damage.
C. Protect conduit from corrosion and entrance of debris by storing above grade. Provide appropriate covering.
D. Protect PVC conduit from sunlight.

1.8 PROJECT CONDITIONS

A. Verify that field measurements are as shown on Drawings.
B. Verify routing and termination locations of conduit prior to rough-in.
C. Conduit routing is shown on Drawings in approximate locations unless dimensioned. Route as required to complete wiring system.

**PART 2 - PRODUCTS**

2.1 CONDUIT REQUIREMENTS

A. Minimum Size: 3/4-inch for all branch circuits located above ceiling. Contractor may use 1/2-inch conduit down the wall to receptacles and light switches.
B. Wet and Damp Locations above grade: Use rigid steel or liquid tight flexible conduit.
C. Dry Locations: Use electrical metallic tubing for concealed and exposed locations.
D. Below Slab: Non-metallic PVC conduit is acceptable within limitations specified.
E. Below Grade: Use only PVC coated rigid galvanized steel, wrapped rigid steel, or non-metallic PVC conduit within limitations specified.
F. MC Cable: Shall not be utilized on this Project.

2.2 METAL CONDUIT

A. Manufacturers:
   1. Allied.
   2. Wheatland.
   3. Substitutions: Under provisions of Section 01 60 00 "Product Requirements."
B. Rigid Steel Conduit: ANSI C80.1.
C. Fittings and Conduit Bodies: ANSI/NEMA FB 1; all steel fittings.

2.3 FLEXIBLE METAL CONDUIT

A. Manufacturers:
   1. Allied Tube.
   2. Electri-Flex.
   3. Greenfield.
   4. Substitutions: Under provisions of Section 01 60 00 "Product Requirements."
B. Description: Interlocked steel construction. Aluminum is not permitted.

C. Fittings: ANSI/NEMA FB 1 with fittings approved for steel flex.
D. Applications: Use for final connections to motorized equipment, connections to recessed lighting fixtures located in accessible ceilings, and connections to dry type transformers. Utilization of 3/8-inch in lieu of the minimum 1/2-inch is acceptable under the limitations of the National Electrical Code.

2.4 LIQUIDTIGHT FLEXIBLE METAL CONDUIT

A. Manufacturers:
1. Electri-flex.
2. Ultratite.
3. Substitutions: Under provisions of Section 01 60 00 "Product Requirements."
B. Description: Interlocked steel construction with PVC jacket.
C. Fittings: ANSI/NEMA FB 1.
D. Applications: Use for final connections to motorized equipment in exterior locations and areas subjected to moisture (kitchen).

2.5 ELECTRICAL METALLIC TUBING (EMT)

A. Manufacturers:
1. Allied.
2. Substitutions: Under provisions of Section 01 60 00 "Product Requirements."
B. Description: ANSI C80.3; galvanized tubing.
C. Fittings and Conduit Bodies: ANSI/NEMA FB 1; all steel, compression or set screw.
D. Applications: Do not use below grade or in exterior locations. Use only in interior locations.

2.6 PVC COATED METAL CONDUIT

A. Manufacturers:
1. Levy.
2. Robroy Industries.
3. Substitutions: Under provisions of Section 01 60 00 "Product Requirements."
B. Description: NEMA RN-1, rigid steel conduit with external PVC coating, 20 mil thick.
C. General: Protective layer may be factory applied or galvanized rigid steel conduit may be applied with two layers of corrosion resistant tape.
D. Fittings and Conduit Bodies: ANSI/NEMA FB 1; steel fittings with external PVC coatings to match conduit.

2.7 NON-METALLIC PVC CONDUIT

A. Manufacturers:
1. Allied.
2. Carlon.
3. Substitutions: Under provisions of Section 01 60 00 "Product Requirements."
B. Description: NEMA TC2; Schedule 40 PVC. Flame retardant type resistant to bending and cracking.
C. Fittings and conduit bodies: NEMA TC3.
D. Vertical risers and ells installed below grade shall be rigid steel with wrapping.
E. Do not use above grade.

F. Joints made with PVC fittings shall be applied with solvent compound after thorough cleaning.
G. Refer to Part 3. Do not use PVC conduit for conduits passing vertically through the slab.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

A. Install conduit in accordance with NECA "Standard of Installation."
B. Install nonmetallic conduit in accordance with manufacturer's instructions.
C. Arrange supports to prevent misalignment during wiring installation.
D. Support conduit using coated steel or malleable iron straps, lay-in adjustable hangers, clevis hangers, and split hangers.
E. Group related conduits; support using conduit rack. Construct rack using steel channel.
F. Fasten conduit supports to building structure and surfaces under provisions of Section 26 05 29 "Supporting Devices."
G. Do not support conduit with wire or perforated pipe straps. Remove wire used for temporary supports.
H. Do not attach conduit to ceiling support wires.
I. Arrange conduit to maintain headroom and present neat appearance.
J. Route exposed conduit parallel and perpendicular to walls.
K. Route conduit installed above accessible ceilings parallel and perpendicular to walls.
L. Maintain adequate clearance between conduit and piping.
M. Maintain 12-inch clearance between conduit and surfaces with temperatures exceeding 104 degrees F.
N. Cut conduit square using saw or pipecutter; de-burr cut ends.
O. Bring conduit to shoulder of fittings; fasten securely.
P. Use conduit hubs or sealing locknuts to fasten conduit to sheet metal boxes in damp and wet locations and to cast boxes.
Q. Install no more than equivalent of three 90-degree bends between boxes. Use conduit bodies to make sharp changes in direction, as around beams. Use factory elbows for bends in metal conduit larger than 2-inch size.
R. Avoid moisture traps; provide junction box with drain fitting at low points in conduit system.
S. Provide suitable fittings to accommodate expansion and deflection where conduit crosses control and expansion joints.
T. Provide suitable pull string in each empty conduit except sleeves and nipples.
U. Use suitable caps to protect installed conduit against entrance of dirt and moisture.
V. Ground and bond conduit under provisions of Section 26 05 26 "Grounding and Bonding."
W. Identify conduit under provisions of Section 26 05 53 "Electrical Identification."
X. Ducts shall be cleaned with a flexible mandrel assembly.
Y. All conduits passing vertically through slabs or through earth on grade shall be PVC-coated, rigid steel. Rigid steel conduits shall be applied with protective coatings as indicated herein. All transitions from PVC to rigid steel shall occur below the slab.
Z. Underground branch circuit extensions to parking lot lighting fixtures and other branch circuits may be direct buried PVC conduit. Service entrance PVC conduit shall be concrete encased in accordance with the Drawings unless otherwise approved by Engineer.

AA. Minimum cover for underground conduits shall be 24 inches unless otherwise noted.
BB. All conduit shall be routed concealed as much as possible including conduit serving roof-mounted equipment. Roof penetrations for conduits shall adhere to the requirements and details as indicated on the Architectural Drawings.

3.2 INTERFACE WITH OTHER PRODUCTS

A. Install conduit to preserve fire resistance rating of partitions and other elements.
B. Route conduit through roof openings for piping and ductwork or through suitable roof jack with pitch pocket. Coordinate location with roofing installation.

END OF SECTION

# SECTION 26 05 33.16 - BOXES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Wall and ceiling outlet boxes.
   2. Pull and junction boxes.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 26 27 26 "Wiring Devices" for wall plates in finished areas.

1.2 REFERENCES

A. NECA - Standard of Installation.
B. NEMA FB 1 - Fittings and Supports for Conduit and Cable Assemblies.
C. NEMA OS 1 - Sheet-Steel Outlet Boxes, Device Boxes, Covers, and Box Supports.
D. NEMA 250 - Enclosures for Electrical Equipment (1,000 Volts Maximum).
E. NFPA 70 - National Electrical Code.

1.3 SUBMITTALS FOR CLOSEOUT

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for Submittals for Project closeout.
B. Record actual locations and mounting heights of outlet, pull, and junction boxes on Project record documents.

1.4 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.
B. Provide Products listed and classified by UL as suitable for the purpose specified and indicated.

## PART 2 - PRODUCTS

2.1 WALL AND CEILING OUTLET BOXES

A. Sheet Metal Outlet Boxes: NEMA OS 1, galvanized steel.
B. Luminaire and Equipment Supporting Boxes: Rated for weight of equipment supported; include 1/2-inch male fixture studs where required.
C. Cast Boxes: NEMA FB 1, Type FD, cast feralloy. Provide gasketed cover by box manufacturer.
D. Wall Plates for Finished Areas: As specified in Section 26 27 26 "Wiring Devices."

2.2 PULL AND JUNCTION BOXES

A. Sheet Metal Boxes: NEMA OS 1, galvanized steel.
B. Surface Mounted Cast Metal Box: NEMA 250, Type 4; flat-flanged, surface mounted junction box.
C. Material: Galvanized cast iron.
D. Cover: Furnish with ground flange, neoprene gasket, and stainless-steel cover screws.
E. Fiberglass boxes are allowed in landscaping areas. Equipment shall be pedestrian rated.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verify locations of outlets in all locations areas prior to rough-in.

3.2 INSTALLATION

A. Install boxes in accordance with NECA "Standard of Installation."
B. Install in locations as shown on Drawings, and as required for splices, taps, wire pulling, equipment connections and compliance with regulatory requirements.
C. Set wall mounted boxes at elevations to accommodate mounting heights specified in Section for outlet device.
D. Electrical boxes are shown on Drawings in approximate locations unless dimensioned. Adjust box location up to 10 feet if required to accommodate intended purpose.
E. Orient boxes to accommodate wiring devices oriented as specified in Section 26 27 26 "Wiring Devices."
F. Maintain headroom and present neat mechanical appearance.
G. Install pull boxes and junction boxes above accessible ceilings and in unfinished areas only.
H. Inaccessible Ceiling Areas: Install outlet and junction boxes no more than 6 inches from ceiling access panel or from removable recessed luminaire.
I. Install boxes to preserve fire resistance rating of partitions and other elements, using materials and methods specified in Section 07 84 13 "Penetration Firestopping."
J. Coordinate mounting heights and locations of outlets mounted above counters, benches, and backsplashes with Architectural Drawings and other trades.
K. Locate outlet boxes to allow luminaires positioned as shown on reflected ceiling plan.
L. Align adjacent wall mounted outlet boxes for switches, thermostats, and similar devices.
M. Use flush mounting outlet box in finished areas.
N. Locate flush mounting box in masonry wall to require cutting of masonry unit corner only. Coordinate masonry cutting to achieve neat opening.
O. Do not install flush mounting box back-to-back in walls; provide minimum 6-inch separation. Provide minimum 24-inch separation in acoustic rated walls.
P. Secure flush mounting box to interior wall and partition studs. Accurately position to allow for surface finish thickness.
Q. Use stamped steel bridges to fasten flush mounting outlet box between studs.
R. Install flush mounting box without damaging wall insulation or reducing its effectiveness.
S. Use adjustable steel channel fasteners for hung ceiling outlet box.
T. Do not fasten boxes to ceiling support wires.

U. Support boxes independently of conduit.
V. Use gang box where more than one device is mounted together. Do not use sectional box.
W. Use gang box with plaster ring for single device outlets.
X. Use cast outlet box in exterior locations exposed to the weather and wet locations and at all locations serving kitchen equipment.
Y. Large Pull Boxes: Use hinged enclosure in interior dry locations, surface-mounted cast metal box in other locations.
Z. Coordinate with other trades for box rough-in, such that control devices are grouped (i.e., thermostats, wall switches, volume controls, etc.).

## 3.3 INTERFACE WITH OTHER PRODUCTS

A. Coordinate installation of outlet box for equipment connected under Section 26 05 19 "Equipment Wiring Systems."

## 3.4 ADJUSTING

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for adjusting installed Work.
B. Adjust flush-mounting outlets to make front flush with finished wall material.
C. Install knockout closures in unused box openings.

## 3.5 CLEANING

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for cleaning installed Work.
B. Clean interior of boxes to remove dust, debris, and other material.
C. Clean exposed surfaces and restore finish.

## 3.6 REPAIR

A. Repair any areas or surfaces damaged during conduit installation.
B. Paint (resurface) to original condition.

END OF SECTION

# SECTION 26 05 53 - ELECTRICAL IDENTIFICATION

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Nameplates and labels.
   2. Wire, conduit, and box markers.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. ANSI/NFPA 70 - National Electrical Code.

## PART 2 - PRODUCTS

2.1 NAMEPLATES AND LABELS

A. Nameplates and Labels: Engraved three-layer laminated plastic, white letters on black background.
B. Locations:
   1. Each electrical distribution and control equipment enclosure.
   2. Communication cabinets and computer cabinets.
   3. Field disconnects, start stop stations, control panels.
C. Letter Size:
   1. Use 1/4-inch letters for identifying individual equipment and loads.
   2. Use 1/4-inch letters for identifying grouped equipment and loads.
   3. Use 3/8-inch letters for identifying main disconnect equipment.
   4. Use 1/4-inch letters for identifying receptacle and light switches.

2.2 WIRE, CONDUIT, AND BOX MARKERS

A. Description: Brady B-321 Heat-Shrink Polyolefin markers. Typed label to identify each termination end point of the conductor. DC conductors shall identify polarity.
B. Locations: Each conductor at wireway, pull boxes, outlet and junction boxes, and each load connection. All conduit penetrations identifying the location of each end.
C. Legend:
   1. Power and Lighting Circuits: Branch circuit or feeder number indicated on Drawings.
D. Boxes:
   1. Label each junction box in accessible locations to indicate the type of system (i.e.; security; power circuit - 1, 3, 5; etc.).
   2. Provide label in each light switch and receptacle back box.

E. Panelboards:
1. Provide phenolic label with maximum available fault current at main switchboard. Utilize number as indicated in panel schedule.
2. Provide warning labels with arc-flash hazard warning for all electrical equipment as indicated in Article 110.16 of NEC.

## PART 3 - EXECUTION

### 3.1 PREPARATION

A. Degrease and clean surfaces to receive nameplates and labels.

### 3.2 APPLICATION

A. Install nameplate and label parallel to equipment lines.
B. Secure nameplate to equipment front using screws or rivets.
C. Identify underground conduits using underground warning tape. Install one tape per trench at 12 inches below finished grade. Identify all conduit at exposed locations into all boxes, cabinets, etc. (see Specification Section 26 05 00 "Basic Electrical Methods").
D. Identify all conductors at every termination indicating endpoints of termination and tag identification as required.

| 120-208 Volts | Phase | 277/480 Volts |
|---|---|---|
| Black | A | Brown |
| Red | B | Orange |
| Blue | C | Yellow |
| White | Neutral | Gray |
| Green | Ground | Green |

E. Conductor phase and voltage identification shall be made by color-coded insulation for all conductors smaller than No. 6 AWG. For conductors No. 6 AWG and larger, identification shall be made by color-coded insulation, or conductors with black insulation may be furnished and identified by colored electrical tape. Conductor identification shall be provided within each enclosure where a tap, splice, or termination is made.

END OF SECTION


PACKET 7.485 September 12, 2023
PACKET 11.487 November 14, 2023

# SECTION 26 18 39 - ENCLOSED MOTOR CONTROLLERS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Manual controllers.
   2. Automatic controllers.
   3. Disconnects.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCES

A. NFPA 70 - National Electrical Code.
B. UL 1 98C - High-Interrupting Capacity Fuses; Current Limiting Type.
C. UL 1 98E - Class R Fuses.
D. NECA "Standard of Installation," published by National Electrical Contractors Association.
E. NEMA ICS 2 - Industrial Control Devices, Controllers, and Assemblies.
F. NEMA ICS 6 - Enclosures for Industrial Controls and Systems.
G. NEMA KS 1 - Enclosed Switches.

### 1.3 SUBMITTALS

A. Submit under provisions of Section 01 33 00 "Submittal Procedures."
B. Product Data: Provide catalog sheets showing voltage, controller size, ratings and size of switching and overcurrent protective devices, short circuit ratings, dimensions, and enclosure details.
C. Test Reports: Indicate field test and inspection procedures and test results.
D. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, installation, and starting of product.

### 1.4 QUALITY ASSURANCE

A. Perform Work in accordance with NECA Standard of Installation.
B. Maintain one copy of each document on-site.

### 1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' documented experience.

1.6 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.
B. Furnish products listed and classified by UL as suitable for purpose specified and indicated.

## PART 2 - PRODUCTS

2.1 MANUAL CONTROLLERS

A. Manual Motor Controller: NEMA ICS 2, AC general-purpose Class A manually operated, full-voltage controller with overload element, NO auxiliary contact, and toggle operator.
B. Fractional Horsepower Manual Controller: NEMA ICS 2, AC general-purpose Class A manually operated, full-voltage controller for fractional horsepower induction motors, with thermal Overload unit, and toggle operator.
C. Enclosure: NEMA ICS 6; Type 1.

2.2 AUTOMATIC CONTROLLERS

A. Magnetic Motor Controllers: NEMA ICS 2, AC general-purpose Class A magnetic controller for induction motors rated in horsepower.
B. Coil Operating Voltage: 120 volts, 60 Hertz.
C. Overload Relay: NEMA ICS; electronic type; with phase loss and unbalance protection.
D. Enclosure: NEMA ICS 6, Type 1.

2.3 PRODUCT OPTIONS AND FEATURES

A. Auxiliary Contacts: NEMA ICS 2, 2 each field convertible contacts in addition to seal-in contact.
B. Cover Mounted Pilot Devices: NEMA ICS 2, heavy duty type.
C. Pushbuttons: Recessed type.
D. Indicating Lights: LED type.
E. Selector Switches: Rotary type.
F. Relays: NEMA ICS 2.
G. Control Power Transformers: 120 volt secondary. Provide fused primary and secondary, and bond unfused leg of secondary to enclosure.

2.4 DISCONNECTS

A. Combination Controllers: Combine motor controllers with fusible switch disconnect in common enclosure.
B. Fusible Switch Assemblies: NEMA KS 1, enclosed knife switch with externally operable handle. Fuse clips: Designed to accommodate Class R fuses.

2.5 FUSES

A. Description: Dual element, current limiting, time delay, one-time fuse, 250V volt, UL 198E, Class RK 5.
B. Interrupting Rating: 200,000 rms amperes.

## PART 3 - EXECUTION

3.1 INSTALLATION

A. Install enclosed controllers where indicated, in accordance with manufacturer's instructions. Provide a motor controller for all equipment not furnished as integral with equipment. Coordinate actual motor loads with overload protection.
B. Install enclosed controllers plumb. Provide supports in accordance with Section 26 05 29 "Supporting Devices."
C. Height: 5 feet to operating handle.
D. Install fuses in fusible switches.
E. Select and install overload heater elements in motor controllers to match installed motor characteristics.
F. Provide engraved plastic nameplates under the provisions of Section 26 05 53 "Electrical Identification."
G. Provide neatly typed label inside each motor controller door identifying motor served, nameplate horsepower, full load amperes, code letter, service factor, and voltage/phase rating.

3.2 FIELD QUALITY CONTROL

A. Field inspection and testing will be performed under provisions of other Sections.
B. Inspect and test each enclosed controller to NEMA ICS 2.

END OF SECTION


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PACKET 11.490 November 14, 2023

# SECTION 26 24 16 - PANELBOARDS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Distribution and branch circuit panelboards.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 26 05 29 "Supporting Devices."
   3. Section 26 05 53 "Electrical Identification" for engraved nameplates.

### 1.2 REFERENCES

A. NECA (National Electrical Contractors Association) "Standard of Installation."
B. NEMA AB 1 - Molded Case Circuit Breakers.
C. NEMA ICS 2 - Industrial Control Devices, Controllers, and Assemblies.
D. NEMA KS 1 - Enclosed Switches.
E. NEMA PB 1 - Panelboards.
F. NEMA PB-2 - Switchboards.
G. NEMA PB 1.1 - Instructions for Safe Installation, Operation and Maintenance of Panelboards Rated 600 Volts or Less.
H. NFPA 70 - National Electrical Code.

### 1.3 SUBMITTALS

A. Shop Drawings: Indicate outline and support point dimensions, voltage, main bus ampacity, integrated short circuit ampere rating, circuit breaker, fusible switch arrangement, and sizes.
B. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, installation, and starting of product.
C. Switchboard and panelboard manufacturer shall provide short circuit and arc fault calculations per NEC requirements. Equipment shall be rated per calculations.

### 1.4 PROJECT RECORD DOCUMENTS

A. Submit under provisions of General Conditions. Record actual locations of products; indicate actual branch circuit arrangement.

### 1.5 OPERATION AND MAINTENANCE DATA

A. Submit under provisions of General Conditions. Maintenance Data: Include spare parts data listing; and recommended maintenance procedures and intervals.

### 1.6 QUALITY ASSURANCE

A. Perform Work in accordance with NECA Standard of Installation.

1.7 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 5 years' experience.

1.8 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70. Furnish products listed and classified by UL as suitable for purpose specified and indicated.

1.9 FIELD MEASUREMENTS

A. Verify that field measurements are as indicated.

1.10 MAINTENANCE MATERIALS

A. Provide maintenance materials under provisions of General Conditions. Provide two of each panelboard key if required.

**PART 2 - PRODUCTS**

2.1 PANELBOARDS

A. Manufacturers:
   1. Eaton.
   2. G.E.
   3. Siemens.
   4. Square-D.

B. Description: NEMA PB-1, circuit breaker type.

C. Panelboard Bus: Copper with ratings as indicated. Provide a copper ground bus in each panelboard.

D. Minimum integrated short circuit rating: Fully rated devices with minimum levels as indicated. Series rated systems will not be allowed. Minimum calculated values are labeled on each panelboard and are indicated as "AIC."

E. Molded Case Circuit Breakers: NEMA AB 1, bolt-on, circuit breakers with integral thermal and instantaneous magnetic trip in each pole. Provide circuit breakers UL listed as type HACR for air-conditioning equipment loads and type SWD for switching applications.

F. Enclosure: NEMA PB-1, Type 1.

G. Cabinet Front: Surface or recessed type as indicated on the Drawings, fastened with concealed trim clamps, hinged door with flush lock, metal directory frame, and finished in manufacturer's standard gray enamel.

## PART 3 - EXECUTION

3.1 INSTALLATION

A. Install panelboards in accordance with NEMA PB 1.1. Install panelboards plumb. Provide supports in accordance with drawings and Section 26 05 29 "Supporting Devices." Height: 6-foot maximum to top of panelboard. Provide filler plates for unused spaces in panelboards. Provide typed circuit directory for each branch circuit panelboard. Revise directory to reflect circuiting changes required to balance phase loads. Spare slots shall be labeled as such in erasable pencil on directory. Provide engraved plastic nameplates under the provisions of Section 26 05 53 "Electrical Identification."

B. Provide two empty 1-inch conduits from each recessed panelboard to an accessible location above and label as "spare."

C. Ground each panelboard in accordance with Section 26 05 26 "Grounding and Bonding."

D. Prove a 4-inch concrete housekeeping pad for switchboard.

3.2 FIELD QUALITY CONTROL

A. Field inspection and test for grounds on each circuit after installation is completed. Measure steady state load currents at each panelboard feeder; rearrange circuits in the panelboard to balance the phase loads to within 20 percent of each other. Maintain proper phasing for multi-wire branch circuits.

B. Visual and Mechanical Inspection: Inspect for physical damage, proper alignment, anchorage, and grounding. Check proper installation and tightness of connections for circuit breakers, fusible switches, and fuses.

END OF SECTION


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# SECTION 26 27 26 - WIRING DEVICES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Wall switches.
   2. Receptacles.
   3. Wall plates.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 26 05 33.16 "Boxes."

1.2 REFERENCES

A. NECA - Standard of Installation.
B. NEMA WD 1 - General Requirements for Wiring Devices.
C. NEMA WD 6 - Wiring Device - Dimensional Requirements.
D. NFPA 70 - National Electrical Code.

1.3 SUBMITTALS FOR REVIEW

A. Refer to Section 01 33 00 "Submittal Procedures."
B. Product Data: Provide manufacturer's catalog information showing dimensions, colors, and configurations.
C. Manufacturers with similar catalog numbers will not be considered as a basis for an equivalent product.

1.4 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' documented experience.

1.5 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.
B. Provide products listed and classified by UL as suitable for the purpose specified and indicated.

## PART 2 - PRODUCTS

2.1 WALL SWITCHES

A. Manufacturers:
   1. Hubbell PRO 1221-W.
   2. Substitutions: Refer to Section 01 60 00 "Product Requirements."
B. Description: NEMA WD 1, 20 amp, Heavy-Duty, AC only general-use snap switch.

C. Body and Handle: Nylon white handle.
D. Utilize equivalent series of manufacturer's numbers above for three-way, four-way, and two-pole applications.
E. Refer to drawings for Lighting Control Sequence Matrix for additional lighting control devices and requirements. Lighting Controls shall be equal to Acuity Brands, nLight system. All devices shall be white.

2.2 RECEPTACLES

A. Manufacturers:
1. Hubbell PRO 5352-W.
2. Substitutions: Refer to Section 01 60 00 "Product Requirements." Equivalent.
B. Description: NEMA WD 1, Heavy-duty, general-use receptacle, with triple wipe contacts and grounding contacts integral with backstrap (no rivets).
C. Device Body: White plastic.
D. Configuration: NEMA WD 6, type as specified and indicated.
E. Convenience Receptacle: Type 5-20.
F. GFCI Receptacle: Convenience receptacle with integral ground fault circuit interrupter to meet regulatory requirements. Hubbell GF5352-W or equivalent.

2.3 WALL PLATES

A. Decorative Cover Plate: Stainless steel.
B. Weatherproof Cover Plate: Gasketed cast metal with gasketed device cover on exterior devices.
C. Surface Mounted Plates: Galvanized steel plates.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Refer to Section 01 30 00 "Administrative Requirements" for verification of existing conditions prior to beginning Work.
B. Verify that outlet boxes are installed at proper height.
C. Verify that wall openings are neatly cut and will be completely covered by wall plates.
D. Verify that branch circuit wiring installation is completed, tested, and ready for connection to wiring devices.
E. Verify installation location of all boxes to be installed in millwork with Engineer.

3.2 PREPARATION

A. Provide extension rings to bring outlet boxes flush with finished surface.
B. Clean debris from outlet boxes.

3.3 INSTALLATION

A. Install in accordance with NECA "Standard of Installation."
B. Install devices plumb and level.
C. Install switches with OFF position down.
D. Do not share neutral conductor on load side of dimmers.

E. Install receptacles with grounding pole located on the bottom as required by Owner.
F. Connect wiring device grounding terminal to branch circuit equipment grounding conductor.
G. Install decorative plates on switch, receptacle, and blank outlets in finished areas.
H. Connect wiring devices by wrapping conductor around screw terminal.
I. Use jumbo size plates for outlets installed in masonry walls.
J. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.
K. Install blank cover plate to match other wall plates on all unused boxes.

3.4 INTERFACE WITH OTHER PRODUCTS

A. Coordinate locations of outlet boxes provided under Section 26 05 33.16 "Boxes" to obtain mounting heights specified and indicated on Drawings.
B. Install all wall switches, thermostats, and fire alarm pull stations at 48 inches above finished floor.
C. Install convenience receptacle 18 inches above finished floor.
D. Install convenience receptacle 6 inches above backsplash of counter unless otherwise directed by Engineer.
E. Install telephone jack 18 inches above finished floor.
F. Install telephone for jack wall telephone to position top of telephone at 48 inches above finished floor.

3.5 FIELD QUALITY CONTROL

A. Refer to Section 01 40 00 "Quality Requirements" for field inspection, testing, adjusting, and balancing.
B. Inspect each wiring device for defects.
C. Operate each wall switch with circuit energized and verify proper operation.
D. Verify that each receptacle device is energized.
E. Test each receptacle device for proper polarity.
F. Test each GFCI receptacle device for proper operation.

3.6 ADJUSTING

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for adjusting installed work.
B. Adjust devices and wall plates to be flush and level.

3.7 CLEANING

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for cleaning installed Work.
B. Clean exposed surfaces to remove splatters and restore finish.

END OF SECTION

# SECTION 26 28 16.16 - ENCLOSED SWITCHES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Fusible switches.
   2. Non-fusible switches.
   3. Fuses.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. NEMA KS 1 - Enclosed Switches.
B. NFPA 70 - National Electrical Code.
C. UL 198C - High-Interrupting Capacity Fuses; Current Limiting Type.
D. UL 198E - Class R Fuses.
E. NEMA AB 1 - Molded Case Circuit Breakers.
F. NECA - Standard of Installation.

1.3 SUBMITTALS

A. Submit under provisions of Section 01 33 00 "Submittal Procedures."
B. Product Data: Provide switch ratings and enclosure dimensions.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with NECA Standard of Installation.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' documented experience.

1.6 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.
B. Furnish products listed and classified by UL as suitable for purpose specified and shown.

## PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Eaton.
B. General Electric.
C. Siemens.
D. Square D.

2.2 ENCLOSED SWITCHES

A. Fusible or Non-fusible as indicated.
B. Switch Assemblies: NEMA KS 1, Type HD load interrupter enclosed knife switch with externally operable handle interlocked to prevent opening front cover with switch in ON position. Handle lockable in OFF position.
C. Fuse Clips: Designed to accommodate NEMA FU1, class R fuses.
D. Enclosures: NEMA KS 1.
E. Interior Dry Locations: Type 1.
F. Exterior Locations: Type 3R or 4.
G. NEMA ratings of enclosures as specified on Drawings take precedence over location Specification.
H. Current rating of switch to be equal to or greater than that of the circuit it is interrupting.

2.3 FUSES

A. Manufacturers:
   1. Bussman.
   2. Gould Shawmut.
   3. Littlefuse.
B. Dimensions and Performance: NEMA FU 1, Class as specified or indicated.
C. Voltage: Provide fuses with suitable voltage ratings for phase to phase voltages.
D. Service Entrance: Class L, Bussman Low-peak or equivalent.
E. General Purpose Loads: Class RK1, Bussman Low-peak or equivalent.
F. Motor Loads: Class RK5, Bussman Fusetron or equivalent.

**PART 3 - EXECUTION**

3.1 INSTALLATION

A. Install in accordance with NECA Standard of Installation.
B. Install fuses in all fusible disconnects.
C. Apply adhesive tag on the inside door of all disconnects indicating the NEMA class fuse and size installed.
D. Provide a disconnect switch for all equipment where indicated or required by the National Electrical Code. Coordinate with other disciplines to determine where disconnects are furnished with equipment.

END OF SECTION

# SECTION 26 51 00 - INTERIOR LIGHTING

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Luminaires.
   2. Exit signs.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. NEMA WD 6 - Wiring Devices-Dimensional Requirements.
B. NFPA 70 - National Electrical Code.
C. NFPA 101 - Life Safety Code.

1.3 SUBMITTALS

A. Refer to Section 01 33 00 "Submittal Procedures" for Submittals.
B. Shop Drawings: Indicate dimensions and components for each luminaire that is not a standard product of the manufacturer.
C. Product Data: Provide dimensions, ratings, and performance data.

1.4 SUBSTITUTIONS

A. Refer to Section 26 05 00 "Basic Electrical Methods" for requirements.

1.5 CLOSEOUT SUBMITTALS

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for Submittals for Project closeout.
B. Operation and Maintenance Data: Submit manufacturer's operation and maintenance instructions for each product.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' documented experience.

1.7 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.
B. Conform to requirements of NFPA 101.
C. Products: Listed and classified by UL as suitable for the purpose specified and indicated.

## PART 2 - PRODUCTS

2.1 LUMINAIRES

A. Furnish products as scheduled. Refer to Section 01 60 00 "Product Requirements" for substitutions and product options.

2.2 EXIT SIGNS

A. Furnish products as scheduled.

## PART 3 - EXECUTION

3.1 INSTALLATION

A. Install suspended luminaires using pendants supported from swivel hangers. Provide pendant length required to suspend luminaire at indicated height.
B. Locate recessed ceiling luminaires as indicated on reflected ceiling plan.
C. Install surface mounted luminaires and exit signs plumb and adjust to align with building lines and with each other. Secure to prevent movement.
D. Exposed Grid Ceilings: Support surface mounted luminaires on grid ceiling directly from building structure.
E. Install recessed luminaires to permit removal from below.
F. Install recessed luminaires using accessories and firestopping materials to meet regulatory requirements for fire rating in locations where fire rated ceilings are present.
G. Install clips to secure recessed grid-supported luminaires in place.
H. Install wall mounted luminaires, emergency lighting units and exit signs at height as indicated on the Drawings or as scheduled.
I. Install accessories furnished with each luminaire.
J. Make wiring connections to branch circuit using building wire with insulation suitable for temperature conditions within luminaire.
K. Bond products and metal accessories to branch circuit equipment grounding conductor.
L. Install specified lamps in each emergency lighting unit, exit sign, and luminaire.

3.2 FIELD QUALITY CONTROL

A. Refer to Section 01 40 00 "Quality Requirements" for field inspection, testing, and adjusting.
B. Operate each luminaire after installation and connection. Inspect for proper connection and operation.

3.3 ADJUSTING

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for adjusting installed work.
B. Aim and adjust luminaires as directed.
C. Position exit sign directional arrows as indicated.
D. Contractor shall readjust occupancy sensor (time and sensitivity) at or before the end of 1-year warranty period.

3.4 CLEANING

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for cleaning installed Work.
B. Clean electrical parts to remove conductive and deleterious materials.
C. Remove dirt and debris from enclosures.
D. Clean photometric control surfaces as recommended by manufacturer.
E. Clean finishes and touch up damage.

3.5 DEMONSTRATION AND INSTRUCTIONS

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for demonstrating installed Work.

3.6 PROTECTION OF FINISHED WORK

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for protecting installed Work.
B. Replace luminaires that have failed prior to Substantial Completion.

END OF SECTION

# SECTION 27 13 43 - TELEPHONE COMMUNICATIONS CABLING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Fiber optic cable.
   2. Fiber optic patch panel.
   3. Optical fiber adapters.
   4. Optical fiber connectors.
   5. Jacks and patch panels.
   6. Equipment racks.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCES

A. Design, installation, and testing of all passive components shall be in compliance with the following referenced documents using latest edition, including any errata or additions:
   1. TIA J-STD-607 (2002a) - Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications.
   2. TIA-526-14 (2010b) - OFSTP-14A Optical Power Loss Measurements of Installed Multimode Fiber Cable Plant.
   3. TIA-568-2 (2009c; Errata 2010) - Commercial Building Telecommunications Cabling Standard - Part 2: Balanced Twisted Pair Cable Components.
   4. TIA-568-C.1 (2009) - Commercial Building Telecommunications Cabling Standard.
   5. TIA-568-C.3 (2008; Corrections 2008) - Optical Fiber Cabling Components Standard.
   6. TIA-569 (2004b; Add 1 2009) - Commercial Building Standard for Telecommunications Pathways and Spaces.

### 1.3 SYSTEM DESCRIPTION AND DEFINITIONS

A. The communication system shall include Category 6 patch panels, Category 6 back bone cables, telephone and data outlets, equipment racks, and connecting hardware. Connecting hardware shall be rated for operation under ambient conditions of 32 degrees Fahrenheit to 140 degrees Fahrenheit.

B. All Work under this Section shall be performed by and all equipment shall be furnished and installed by a qualified telecommunications contractor, hereafter referred to as Contractor. Contractor shall have minimum of 3 years' experience in the application, installation, and testing of the specified systems and equipment.

C. The equipment and hardware provided under this Contract will be from manufacturers that have a minimum of 3 years' experience in producing the types of systems and equipment specified.

D. Cable Requirements and Definitions:
   1. Horizontal Distribution Wiring - Category 6 UTP:
      a. Intra-building cable that cross-connects the workstation data jack to the designated equipment closet. Horizontal wiring shall be four pair, 100-ohm plenum grade Unshielded Twisted Pair (UTP) cable meeting, at a minimum, Category 6 standards. RJ-45 modular connectors will be wired to meet EIA/TIA-568B standards and color code tables. Each connection shall include all eight wires of the four pair cable. All termination patch panels will comply with Category 6 standards. Additionally, all equipment selected will meet the manufacturer's end-to-end solution requirements for warranty. All horizontal wiring shall be secured and/or protected to safeguard against damage. All cables that drop below ceiling level will be concealed conduit.

E. Patch Panels: RJ-45 patch panels shall support all of the RJ-45 connections for a designated LAN zone. Provide fiber optic patch panel. Each port shall be labeled designating the port's destination outlet and port number. All conductors of all cables shall be terminated at both ends. Provide 48 port patch panels and quantity of patch panels required to support communciation cables required plus 2010 spare parts.

F. Data Outlets: Provide Category 6 RJ-45 Outlet as indicated on Drawings.

1.4 SUBMITTALS

A. Product Data: Submit for Category 6 outlet, Category 6 cable, Category 6 patch panel.

B. Test Reports: Reports shall show the field test performed to verify compliance with the specified performance criteria. Test reports shall include record of the physical parameters verified during testing.

## PART 2 - PRODUCTS

2.1 HORIZONTAL DISTRIBUTION WIRING SYSTEM REQUIREMENTS

A. The horizontal cable for communication outlet wiring is defined as multi-conductor, thermoplastic-insulated, copper cable, 24 AWG air core, with four unshielded twisted pairs rated to a performance criteria of Category 6.

B. Cable protection will be of the highest concern. The cable sheath shall be protected from sharp edges. Where cables pass over a sharp edge, a bushing or grommet shall be inserted to protect the cable.

C. To reduce EMI induced into the cabling from fluorescent lights, cable sheath shall be installed in a hanging pathway in the area above the drop ceilings to maintain proper clearance of 5 inches from fluorescent lights.

D. Testing after installation and termination will be required to ensure a rating to Category 6 performance.

E. The cable's outer sheath shall be "blue" in color for data.

F. Horizontal cabling shall be installed in a star topology. Each work area outlet must be cabled directly to a horizontal cross connect in the appropriate equipment closet.

G. Splices shall not be permitted for twisted-pair horizontal cabling.

H. Bridged taps (multiple appearances of the same cable pairs at several distribution points) shall not be permitted in the horizontal cable.

I. In all cases where the overall cable length allows, an additional 5 feet of slack shall be allowed for in the equipment closet.

J. In all cases where the overall cable length allows, an additional 12 inches of cable slack shall be allowed for at the outlet location.

K. In no case shall the slack allowances cause the overall length of the cable to exceed the limits as described in this Section.

L. Horizontal Cable Lengths: The maximum horizontal cable length from the cross connect panel to the workstation outlet shall not exceed 295 feet. An additional 33-foot allowance has been made for the combined length of patch cables and cables used to connect equipment in the work area and equipment rack.

M. Category 6 High Speed LAN Data Specifications:
   1. Electrical Specifications: Impedance 100 ohm plus or minus 15 percent.
   2. See testing specification for Category 6 performance - Execution for Attenuation and NEXT requirements.
   3. Mutual Capacitance: 17 pico Farad per foot maximum.

## 2.2 FIBER OPTIC CABLE

A. Provide in accordance with ICEA S-83-596, TIA/EI-568-C.3, UL and NFPA 70. Cable shall be imprinted with fiber count, fiber type, and aggregate length at regular intervals not to exceed 40 inches.

B. EIA TIA/EIA-492AAAA-A, multimode, 50/125-µm diameter, tight buffered fiber optic cable. Provide a 12 strand multimode fiber optic cable. Provide nonconductive optical fiber general purpose cable (OFN or OFNG), nonconductive optical fiber plenum cable (OFNP), and nonconductive optical fiber riser cable (OFNR) rated cable in accordance with NFPA 70 and UL 910. Type OFNP or OFNR may be substituted for type OFN or OFNG and type OFNP may be substituted for type OFNR in accordance with NFPA 70. The cable cordage jacket, fiber, unit, and group color shall be in accordance with EIA TIA/EIA-598.

C. Provide fiber optic cable from the main Demark room to the IT room serving the building.

## 2.3 FIBER OPTIC PATCH PANEL

A. Provide panel for maintenance and cross-connecting of optical fiber cables. Panel shall be constructed of 16 gauge steel minimum and shall be cabinet mounted and compatible with an EIA-310-D 19-inch equipment rack. Each panel shall be compatible with Type LC connectors. Provide dust cover for unused adapters. The rear of each panel shall have a cable management tray a minimum of 8 inches deep with removable cover, incoming cable strain-relief, and routing guides. Panels shall have each adapter factory numbered and be equipped with laminated plastic nameplates above each adapter. Provide fiber optic patch panel in each LAN hub enclosure.

## 2.4 OPTICAL FIBER ADAPTERS

A. Provide optical fiber adapters suitable for LC connectors. Provide dust cover for adapters. Optical fiber adapters shall comply with EIA TIA-455-21-A for 500 mating cycles.


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2.5 OPTICAL FIBER CONNECTORS

A. Provide in accordance with EIA TIA-455-21-A. Optical fiber connectors shall be type LC in accordance with applicable EIA/TIA standards. The connectors shall provide a maximum attenuation of 0.3 dB at 850, 1,300, 1,310 and 1,550 µm with less than a 0.2 dB change after 500 mating cycles.

2.6 JACKS AND PATCH PANELS

A. Category 6 rating shall be applied to all connecting hardware appropriate for use with UTP cables specified in the EIA/TIA-568-C3. Components used shall be characterized up to a minimum 6 certification and typically intended for emerging technologies and applications. Provide a minimum of 10 percent spare ports in patch panel. Provide separate patch panels for telephone and data wiring.

2.7 EQUIPMENT RACKS

A. Provide 19-inch, 7-foot tall, 4-post. Refer to Drawings for additional rack information.
B. Provide number of racks to support equipment required including spaces as indicated.
C. Provide Cable Management System for each rack as manufactured by Panduit.
D. Provide rack with all associated hardware.

2.8 SUPPORT PRODUCTS

A. All data/telephone cabling shall be in conduit or cable tray.

**PART 3 - EXECUTION**

3.1 GENERAL

A. Contractor shall provide Category 6 cable, Category 6 patch panels, fiber optic patch panel, fiber optic cable, Category 6 outlets, equipment rack, and mounting hardware for LAN HUB. All communication cables shall be terminated and tested.

3.2 CABLE DISTRIBUTION

A. Contractor shall wire the building as indicated on the Contract Drawings in accordance with standards. The building shall be wired using a universal wire plan that must accommodate the cables described in this Specification. The wiring plan is designed to provide adequate pairs to support the campus LAN system's high-speed data connections.
   1. Two four-pair Category 6, 100-ohm plenum rated UTP cables shall be provided for each data port. Cable shall be rated CMP.
   2. Category 6, RJ-45 modular connections shall be wired to meet TIA/EIA 568-C.1 and TIA/EIA 568-C.2 pin, pair and color designation.
   3. Each connection shall include all eight conductors of each of the four pair cable.


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4. Placement relative to nearby noise sources, such as electric power wiring, radio frequency (RF) sources, large motors and generators, induction heaters, fluorescent light ballast, etc., shall be avoided. If necessary, place exposed cables not closer than 4 feet from large motors or transformers, 1-foot from conduit and cables used for electrical power distribution and 5 inches from fluorescent lighting.
5. Unless otherwise instructed by this Specification installation shall be in compliance with EIA/TIA-568-C1, TIA-568-2, TIA-569, NFPA 70, UL Standards, Telecommunications Cabling Standard, EIA/TIA-569 Commercial Building Standard for Telecommunications Pathways and Spaces, and ANSI/NFPA 70 National Electric Code. Installation shall also meet any additional manufacturer's requirements to fulfill warranty Specifications.
6. Provide a minimum of 5 feet of cable slack in the equipment cabinets and 12 inches at the outlet for each cable run to accommodate for future cabling system changes.

3.3 USER WORK AREA

A. Distribution of drop locations will be as indicated on the Contract Documents. Provide the following at each outlet location: Minimum telephone/data: Two Category 6 jack (RJ-45) at each outlet (with two blue cables). Provide number of drops per outlet as indicated on Drawings.
   1. 1,000 Mbite/Sec, Fast Ehternet, Lockable.
   2. Labeling:
      a. All data outlets, patch panel ports, and both ends of each cable shall be clearly and neatly labeled. Two cable identification schemes will be used, one for the end of the cable in the work area, and one for the end of the cable at the patch panel. The labeling schemes shall be as follows:
   3. Work Area Scheme: The first digit of the I.D. number will use a numeric character, designating the LAN zone in which the jack is located. The first digit will be followed by a dash (-). The next character will be an alphabetic designator to identify the patch panel in which the cable is terminated. This character will be followed by a dash (-). The last digit will be a numeric designator corresponding with the patch panel port into which the cable is terminated. For example: The cable to the first port in the first patch panel in LAN Zone 1, will be designated as 1-A-1. The cable to the second port will be 1-A-2. Cables to the second patch panel will be labeled 1-B-1, 1-B-2, 1-B-3, etc. Contractor will be responsible for clearly and visibly labeling each patch panel in accordance with the scheme described above.

4. Patch Panel Scheme: The first portion of the I.D. number will correspond with the room number to which the cable runs. This number will be followed by a dash (-). The next portion of the I.D. number will be an alphabetic designator to identify the faceplate in the work area where the cable is terminated. This character will be followed by a dash (-). The last portion of the I.D. number will be a numeric designator that corresponds with the faceplate jack in which the cable is terminated. For example: The cable to the first jack in the first faceplate in Room 32 will be designated as 32-A-1. The cable to the second jack will be 32-A-2. Cables to the next faceplate in Room 32 will be labeled 32-B-1, 32-B-2, 32-B-3, etc. Contractor will be responsible for clearly and visibly labeling each faceplate in accordance with the scheme described above. Faceplates should be lettered in a clockwise sequence beginning at the main entrance into the room. Jacks on each faceplate will be sequenced in a clockwise direction beginning from the upper left-hand side of the faceplate. In situations where cable is run to an unnumbered room, Contractor will be responsible for coordinating with the appropriate government representative(s) to assign a number to the room.

## 3.4 EQUIPMENT CLOSETS

A. Equipment racks shall be bolted to the floor slab. Cable guides shall be bolted or screwed to racks. Racks shall be installed level.
   1. Patch Panels: High density, low profile patch panels shall be used in all locations. Patch panels may vary in number of ports provided, but shall be of the same manufacturer and series, for all closets. All patch panels will be populated with port counts that equal or exceed total ports needed, plus 10 percent, for each closet.
      a. UTP Patch Panels: All patch panels used to terminate UTP cables shall comply with selected vendors channel rating for Category 6.
         1) Patch cables connecting data work ports to the LAN switches shall be Category 6 compliant, both cordage and couplers. Patch cables shall be constructed of stranded cable. Although the switches and other active components will be provided by the Owner, all patch cables shall be provided by Contractor to provide connection to these active components. Contractor shall also provide each Site a quantity of spare patch cables equal to 10 percent of the total used at that Site. Patch cables shall be appropriately sized to allow for a neat and maintainable system.
         2) All ports will be labeled in accordance with the labeling scheme described in this Specification.

## 3.5 TESTING

A. Horizontal Wiring Testing: Testing of all data horizontal UTP cables shall be performed in accordance with EIA/TIA TSB-1152 to ensure rating of Category 6 performance. Test parameters shall include wire mapping, attenuation, NEXT, and noise measurements to verify a limit below 100 megavolts.

1. All distribution plant facilities associated with the new wiring system shall be tested and verified after installation activities and all major plant rearrangements have been completed. Tested copper pairs shall conform to the design guidelines as specified, as well as manufacturer's standards. Cable plant testing of the data jack will diagnose the presence of all open-loop conductors, noisy lines and distortion, low-loop current, high-loop loss, ringer failures, grounded, shorted or crossed conductors, dB loss, split connections, attenuation range, and/or near-end cross-talk. Contractor will supply complete testing and correction reports/information and explanation to the government, or designated representative, for review prior to acceptance of the system(s). Contractor and the government or designated representative will develop a mutually acceptable format for recording and reporting of testing results prior to the start of testing activities. All errors are to be corrected at Contractor's expense prior to providing the completed records.
    a. Perform Category 6 link tests in accordance with EIA TIA/EIA-568-C.1 and EIA TIA/EIA-568-C.2. Tests shall include wire map, length, insertion loss, NEXT, PSNEXT, ELFEXT, PSELFEXT, return loss, propagation delay, and delay skew.
2. A wire map test will be performed as per TIA/EIA TSB-568-C.3. This test will be used to verify pair to pin termination at each end and check for installation connectivity errors.

B. Horizontal Wiring Testing (Test from Both Ends):
1. The following parameters will be measured from both sides of the link:
    a. Attenuation: A measure of signal loss in the link.
    b. Near-End Crosstalk Loss (NEXT): A measure of signal coupling from one pair to another within a UTP cabling link and is derived from swept/stepping frequency voltage measurements.

C. Noise Testing:
1. The noise level testing associated with the data circuit will only be required if problems occur with the previous test procedures, or if the manufacturer requests it for warranty purposes. If tested, it shall be measured over seven different frequencies.
    a. Noise will be measured by recording interference from all outside sources (for example, power cables). The noise is generally steady throughout the entire frequency range and permanently exists. Acceptable levels will be the lower of the manufacturer's specifications or less than 100 megavolts.
    b. Noise peaks will be measured by adjusting a threshold. All peaks that exceed the threshold will be documented. Acceptable peaks will be determined by the manufacturer's specifications, or by IEEE 802.3 10BaseT Ethernet Standards.

D. Additional Testing:
1. Any additional testing and/or documentation required by the manufacturer to show full compliance with warranty requirements shall be provided to the government by Contractor. Final test results will meet manufacturer's guidelines for the cabling channel.

E. Telecommunications Cabling Testing:

1. Perform telecommunications cabling inspection, verification, and performance tests in accordance with TIA-568-C.1, EIA TIA/EIA-568-C.2, EIA TIA/EIA-568-C.3, and TIA-568-2. Perform optical fiber field inspection tests via attenuation measurements on factory reels and provide results along with manufacturer certification for factory reel tests. Remove failed cable reels from Project Site upon attenuation test failure. All fiber optic, data, and telephone cables shall be terminated and tested.
2. For multimode optical fiber, perform optical fiber end-to-end attenuation tests in accordance with EIA TIA/EIA-568-C.3 and EIA TIA/EIA-526-14 using Method A, Optical Power Meter and Light Source for multimode optical fiber.

END OF SECTION

# SECTION 28 15 00 - INTEGRATED ACCESS CONTROL HARDWARE DEVICES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. This Section includes access control door hardware for the following:
   1. Swinging doors.
   2. Other doors to the extent indicated.
   3. Security or High Security keyed cylinders, including provisions for temporary construction keying, for mechanical override at access control locking hardware to be furnished under Division 08 71 00 "Door Hardware."
   4. Electrified and integrated access control card key door hardware.
   5. Security or high security keyed cylinders, including provisions for temporary construction keying, for mechanical override at access control locking hardware to be furnished under Division 08 71 00 "Door Hardware."

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Division 08 11 13 "Hollow Metal Doors and Frames."
   3. Division 08 41 13 "Aluminum-Framed Entrances and Storefronts."
   4. Division 08 71 00 "Door Hardware."
   5. Division 26 Section "Electrical" for connections to electrical power system and for low-voltage wiring work.
   6. Division 27 Section "Telephone Communications Cabling" for connections to the LAN.

### 1.2 REFERENCES

A. ANSI A117.1 (1998) - Accessible and Usable Buildings and Facilities.
B. IBC - International Building Code
C. NFPA 70 (2002) - National Electrical Code.
D. NFPA 80 (1999) - Fire Doors and Windows.
E. NFPA 101 (2006) - Life Safety Code.
F. UL 294 - Access Control Systems.
G. UL 1076 - Proprietary Burglar Alarm Units and Systems.

### 1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions, and finishes.

B. System Operational Descriptions: Complete system operational narratives for the integrated access controlled openings defining the owner's prescribed requirements for the opening functionality. Narratives include, but are not limited to, the following situations: normal secured/unsecured state of door; authorized access; authorized egress; unauthorized access; unauthorized egress; fire alarm and loss of power conditions, and interfaces with other building control systems.

C. Shop Drawings: Details of electrified integrated locking hardware and access control firmware, indicating the following:
   1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware and firmware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
      a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
      b. Complete (risers, point-to-point) access control system block wiring diagrams.
   2. Electrical Coordination: Coordinate with related Electrical Sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Proof of Certification: Upon request provide a copy of manufacturer's official certification or accreditation document indicating proof of status as a qualified and authorized provider of the primary access control components.

E. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete access control and site management installation in quantity as required in Division 01, Closeout Submittals. Manual to include name, address, and telephone number of the supplier/integrator providing the installation and the nearest service representatives for each item of equipment included in the system. The final copies delivered after completion of the installation test to include "as built" modifications made during installation, checkout, and acceptance.
   1. As-Built Drawings: During system installation, the Contractor to maintain a separate hard copy set of drawings, elevation diagrams, and wiring diagrams of the access control system to be used for record Drawings. This set to be kept up to date by the Contractor with all changes and additions to the access control system accurately recorded.

F. Warranties and Maintenance: Special warranties and maintenance agreements specified in this Section.

## 1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum of 5 years of documented experience in providing access control and security systems equipment and software similar to that indicated for this Project and that have a proven record of successful in-service performance.
   1. Software and access control systems components to have been previously and thoroughly tested together with proven installations similar in size and functionality to the design requirements indicated for this Project.

B. Supplier Qualifications: Supplier/dealers, verifiably authorized and in good standing with the primary product manufacturers, with a minimum of 3 years of experience supplying integrated access control systems similar in material, design, and scope to that indicated for this Project and whose work has resulted in construction with a proven record of successful in-service performance.

C. System Integrator Qualifications: Systems integrators, verifiably factory trained and certified by the primary product manufacturers, with a minimum of 3 years documented experience installing complete integrated access control systems similar in material, design, and scope to that indicated for this Project and whose work has resulted in construction with a proven record of successful in-service performance. Qualifications include, but are not necessarily limited, to the following:
   1. References: Provide a list of references for similar projects including contact name, phone number, name and type of project.
   2. Professional Staffing: Firms to have a dedicated access control systems integration department with full time, experienced professionals on staff experienced in providing on-site consulting services for both electrified door hardware and integrated access control systems installations.
   3. Factory Training: Installation and service technicians are to be competent factory trained and certified personnel capable of maintaining the system.
   4. Service Center: Firms to have a service center capable of providing training, in-stock parts, and emergency maintenance and repairs at the Project Site with 24-hour/7-days a week maximum response time.

D. Installer Qualifications: Certified technicians, verifiably authorized with the primary product manufacturers for installation of IP-Enabled, Wireless, and Power-over-Ethernet Access Control products in accordance with documented instructions and NFPA 80.
   1. ASSA ABLOY access control products are required to be installed only through designated "Preferred Installers."

E. Source Limitations: Obtain the access control door hardware, system firmware, and application software specified in this Section from a single source, qualified supplier/integrator unless otherwise indicated.
   1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
   2. Provide integrated access control door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

F. Regulatory Requirements: Comply with NFPA 70, NFPA 80, NFPA 101 and ANSI A117.1 requirements and guidelines as directed in the model building code including, but not limited to, the following:
   1. Comply with NFPA 70 "National Electrical Code", including electrical components, devices, and accessories listed and labeled as defined in Article 100 by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
   2. Where indicated to comply with accessibility requirements, comply with Americans with Disabilities Act (ADA), "Accessibility Guidelines for Buildings and Facilities (ADAAG)," ANSI A117.1.
   3. Comply with NFPA 101 "Life Safety Code" for doors in a means of egress.
   4. Comply with NFPA 80 "Fire Doors and Windows" for fire labeled opening assemblies.
   5. The installed access control system shall conform to all local jurisdiction requirements.

G. Keying Conference: Reference Section 08 71 00 "Door Hardware."

H. Pre-Submittal Conference: Conduct conference with attendance by representatives of supplier/dealer, systems integrator, and Contractor to review proper methods and procedures for receiving, handling, and installing the access control system hardware. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedules.
   1. Inspect and discuss Division 26 electrical roughing-in and similar preparatory Work performed by other trades.
   2. Review and verify sequence of operation descriptions for each unique access controlled opening.
   3. Review and finalize construction schedule and verify availability of materials.
   4. Review the required inspecting, testing, commissioning, and demonstration procedures.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Do not store electronic access control hardware, software or related accessories at Project Site without prior authorization.
   1. Access Control Firmware and Software: Where approved and directed, inventory upon receipt and store electronic access control equipment in a secure, temperature and humidity controlled environment in original manufacturer's sealed containers.

B. Tag each item or package separately with identification related to the final access control door Schedule, and include basic installation instructions with each item or package.

C. Deliver permanent keys, cores, access control credentials, software, and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner established at the "Pre-Submittal Conference."

1.6 COORDINATION

A. Coordinate quantity and arrangement of assemblies with ceiling space configuration and with components occupying ceiling space, including structural members, pipes, air-distribution components, raceways, cable trays, recessed lighting fixtures, and other items.

B. Access Control System Electrical Coordination: Coordinate the layout and installation of scheduled electrified door hardware, and related access control equipment, with required connections to source power junction boxes, power supplies, detection and monitoring hardware, and fire alarm system.
   1. Door Hardware Interface: The card key access control system to interface and be connected to electronic door control hardware (electromechanical locks, electric strikes, magnetic locks, door position switches, other monitoring contacts, and related auxiliary control devices) as described under Section 08 71 00 "Door Hardware." Coordinate the installation and configuration of specified door hardware being monitored or controlled with the controls, software, and access control hardware specified in this Section.

C. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing electrified door hardware and access control system components. Check Shop Drawings of other Work to confirm that adequate provisions are made for locating and installing access control system hardware to comply with indicated requirements.

D. Door and Frame Preparation: Reference Division 08, Openings: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling, and access control system hardware without additional in-field modifications.

1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article will not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and are in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of the installed access control system hardware and software that fails in materials or workmanship, including all related parts and labor, within specified warranty period after final testing and acceptance by the Owner. Failures include, but are not limited to, the following:
   1. Structural failures including excessive deflection, cracking, or breakage.
   2. Faulty operation of the hardware.
   3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
   4. Electrical component defects and failures within the systems operation.

C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.

D. Special Warranty Periods (Electrified Access Control Door Hardware):
   1. Two years for Electrified, Wiegand Output, and IP-Enabled Access Control Door Hardware.

E. Maintenance Support and Extended Service Agreement: Submit for Owner's consideration an optional extended Service Agreement for the installed access control system, including support for software related issues. The extended service agreement is considered elective and is without manufacturer's requirement stipulating mandatory coverage for Owner and/or vendor system support.
   1. A published copy of this agreement to be included with the Submittal package.
   2. Support for the installed access control system components is provided through the vendor under a 24 hour technical assistance program.
   3. Access control and management system components are to be available on a one-day turn around time frame from the manufacturer.
   4. Primary systems manufacturer to offer and provide remote modem or internet access for direct factory support to the vendor. The factory level support to include diagnostics and troubleshooting support on systems related issues at no additional cost to the owner.

F. Access Control Software Upgrades: Version upgrades and "fix" releases to the access control system software are available at no extra charge as long as the version of software provided under this specification remains the current manufacturer's version or for up to 2 years after a new version release.
   1. Major access control software revisions that provide new functionality to the product provided free of charge for up to 1 year from the date of Substantial Completion.

2. Access control system software is to be upgradable as may be required or as necessary, to expand and manage the Owner's Site or Sites. Upgrades are to be offered at a published flat fee for the primary system software, with single license modules included in the primary fee structure. System upgrades offered at a costing structure based upon the original number of licensed modules issued, or on those to be purchased at a future date, are not allowed.
3. As part of the Submittal package, provide a list of available software upgrades and/or expansions modules. List to identify related costs for upgrades, or expansions to the original system, up to the next qualifying operational level.

1.8 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of the installed access control system hardware and components.
B. Maintenance Service: Beginning at Substantial Completion, and running concurrent with the specified warranty period, provide continuous 6 months full maintenance by skilled employees of the systems integrator. Include repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper door opening operation. Provide parts and supplies as used in the manufacture and installation of original products.

1.9 SCOPE OF WORK

A. On-Line Electronic Access Control System: Furnish and install at the indicated locations the specified electrified and integrated door hardware and access control firmware and software for a completely operational access control and security site management system. System includes, but is not necessarily limited, to the following:
1. Electrified integrated card reader locks and exit hardware, permanent and temporary override cylinders, network control processors, reader controller panels, I/O monitor/control interfaces, door position switches, remote card readers, keypads, and display terminals, access cards and credentials, system application software, special tools, operating manuals, and required cabling and accessories as detailed below and listed in the Access Control Hardware Sets at the end of Part 3.
a. Provide the appropriate number of reader controller panels and I/O monitoring/control expansion interfaces as needed to handle the number of card readers, locking devices, door status devices, and identified alarm inputs specified in this section, and as shown on the security Drawings.
b. Provide manufacturer approved integrated card reader locks, exit hardware, and remote mounted card readers, keypads, and display terminals that are functionally compatible with the specified access control equipment interfaces.
2. Access control system equipment to be installed in an enclosure box compatible with the specified components. This enclosure to include, but is not necessarily limited to, the network control processor, I/O monitor/control interface panels, power supplies, terminal strips, wire ducts, keyed lock cylinder, integrated outlet for A/C power, and standoffs.
a. Enclosure box to be located in the designated IT/Telecom room(s) with connection to local area network for communication back to the central server host.

3. Owner to provide the following:
   a. Central server host computer, client workstations, and hardware peripherals to be from an approved, major line computer manufacturer. Specific information detailing compliance with system requirements to be included in the Project Submittal package as specified.
   b. Owner will be responsible for ensuring that each computer hardware component includes the required interfaces, expansion boards, and peripherals that will be necessary to allow the system to operate as described within this Specification and as indicated on the Drawings.
   c. Power Sourcing and Network Switches: Quantity as required to accommodate installed access control (and video surveillance) devices.
   d. Network Control Processor Connections:
      1) LAN/Ethernet communication ports (jacks) and network interface cards as needed, CAT5e cabling from network router/switch to network control processor, outlet and cover plates, and/or patch cables required for network connection within each designated IT/Telecom room.
      2) Required static IP addresses.
4. Power Supplies, including battery back up and separately fused surge protection, required for the electrified door hardware and access control equipment.
5. Installation, final configuration, and commissioning of electrified door and access control system hardware, communication firmware, power supplies, and related accessories.
6. System application software including installation, programming, and end user training of the access control system demonstrating operating, repair, and maintenance procedures. Include no fewer than 8 hours of on-site central server training for designated personnel (facilities maintenance, security, IT, administration) by a factory certified representative.
7. Provide manufacturer required power controllers, interface boards, and programming that may be required for approved electric latch retraction exit devices supplied under Section 08 71 00 "Door Hardware."
8. Electrical Contractor to provide the following:
   a. Source power wiring (120VAC) as required for the electrified locking and access control hardware, equipment, accessories, and power supplies. This includes quad outlets as required on a dedicated circuit in the designated IT/Telecom room(s) and the related conduit, stub-in, junction boxes, and connectors required for the source power delivery and connections.
   b. Provide required conduit, stub-in, junction, and back boxes for both the electrified locking hardware and access control equipment at each of the access controlled or monitored openings per plan drawings and specs. Supply and install conduit between each of the aforementioned devices and between the electrical junction boxes, power supplies, and access control equipment located on or above the door opening.
      1) At wall mounted remote readers, provide conduit on the secured side of the door 36 inches from the finish floor and 6 inches from the edge of the frame, to the related power supplies and access control equipment.
      2) At electrical hardware power transfers, provide conduit on the secured side of the opening from the power transfer, thru-wire hinge, or serviceable panel location on the frame jamb to the related power supplies and access control equipment.
   c. Electrical Contractor to provide all 120VAC cabling connections and terminations from the electrical junction boxes to these electrical devices.

9. Access Control System Integrator to provide the following:
   a. Low voltage wiring (12/24VDC) and communication cabling (RS-232/RS-485) from network control processors to reader controllers, I/O monitor/control interface panels, electrified and integrated locking hardware, remote card readers, keypads, or display terminals, monitoring and signaling switches, and power supplies. Work includes related connectors, final terminations, and hook-ups required for a complete and functional access controlled opening in accordance with applicable codes and specified system operational narratives.
10. Elevator Contractor to provide the following:
   a. Interface or landing of interface cable onto the elevator call button will be performed by a certified elevator Contractor.
   b. Coordinate with access control systems integrator provisions for a card reader with output allowing the elevator call button to be activated. A validated card read will be required for activation.
11. Full and seamless integration of the Site intrusion alarm service if applicable, with the installed Site access control system software.
12. Final connections to fire alarm system, if required, by electrical and fire alarm system Contractors.
13. Provide permits, submittals, and approvals required by the authority having jurisdiction prior to commencing with Work.
14. Provide manufacturer required power controllers, interface boards, and programming that may be required for approved electric latch retraction exit devices supplied under Section 08 71 00 "Door Hardware."
15. Electrical Contractor Provides the Following:
   a. Provide required conduit, stub-in, junction, and back boxes for both the electrified locking hardware and access control equipment at each of the access controlled or monitored openings per plan drawings and specs. Supply and install conduit between each of the aforementioned devices and between the electrical junction boxes, power supplies, and access control equipment located on or above the door opening.
      1) At off-line remote readers, provide conduit on the secured side of the door 36 inches from the finish floor and 6 inches from the edge of the frame to the related power supplies and access control equipment.
      2) At electrified hardware power transfers provide conduit on the secured side of the opening from the power transfer, thru-wire hinge, or serviceable panel location on the frame jamb to the related power supplies and access control equipment.
   b. Electrical Contractor to provide all 120VAC cabling connections and terminations from the electrical junction boxes to these electrical devices.
16. Access Control System Supplier Provide the Following:
   a. Low voltage wiring (12/24VDC) for the electrified locking hardware, remote card readers, monitoring and signaling switches, and power supplies. Work includes related connectors, final terminations and hook-ups required for a complete and functional access controlled opening in accordance with applicable codes and specified system operational narratives.
17. Typical System Requirements (Owner Provided): Central server host computer, client workstations, and hardware peripherals to be from an approved, major line computer manufacturer. Specific information detailing compliance with system requirements to be included in the Project Submittal package as specified.

## PART 2 - PRODUCTS

2.1 CABLES AND WIRING

A. Data Line Supervision: System to include alarm initiation capability in response to opening, closing, shorting, or grounding of data transmission lines.
B. Install appropriate number of conductor pairs, in the wire gage (AWG) recommended by manufacturer, corresponding to the electronic locking functions specified, amperage drawn and distances covered between the power supplies, power transfer devices, electrified hardware, and access control equipment.

2.2 ACCESS CONTROL HARDWARE FINISHES

A. Standard: Comply with BHMA A156.18.
B. Protect mechanical finishes on exposed surfaces from damage by applying temporary protective coverings before shipping.
C. Where specified, finishes on integrated card key locksets or exit hardware to incorporate an FDA recognized antimicrobial coating (i.e., MicroShield™) listed for use on equipment as a suppressant to the growth and spread of a broad range of bacteria, algae, fungus, mold and mildew.
D. BHMA Designations: Comply with base material and finish as specified.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance of the installed access control system.
B. Examine roughing-in for electrical source power to verify actual locations of wiring connections before electrified and integrated access control door hardware installation.
C. Examine roughing-in for LAN and control cable conduit systems to PCs, controllers, card readers, and other cable-connected devices to verify actual locations of conduit and back boxes before device installation.
D. Notify Engineer of any discrepancies or conflicts between the Specifications, Drawings and scheduled access controlled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Doors and frames at scheduled access controlled openings to be properly prepared to receive specified electrified and access control hardware and connections without additional in-field modifications.

3.3 INSTALLATION

A. Install each item of electronic integrated door hardware and access control equipment to comply with manufacturer's written instructions and according to Specifications.

B. Mounting Heights: Mount electronic integrated door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
   1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Engineerural Hardware for Standard Steel Doors and Frames."
   2. Wood Doors: DHI WDHS.3, "Recommended Locations for Engineerural Hardware for Wood Flush Doors."
   3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."

C. Boxed Power Supplies: Verify locations.
   1. Configuration: Provide the least number of power supplies required to adequately serve doors with access control hardware and equipment.

D. Final connect the system control switches (integrated card key locking hardware, remote readers, keypads, display terminals, biometrics), and monitoring, and signaling equipment to the related controller devices at each opening to properly operate the electrified door and access control hardware according to system operational narratives.

E. Retrofitting: Install each door hardware and access control item to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

F. System Application Software: Install and test application(s) software and databases for the complete and proper operation of systems involved. Assign software license(s) to Owner.

## 3.4 FIELD QUALITY CONTROL

A. Field Inspection (Punch Report): Reference Sections 01 70 00 "Execution and Closeout Requirements." Produce Project punch report for each installed door opening indicating compliance with approved Submittals and verification hardware is properly installed, operating, and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.
   1. Organization of List: Include separate door opening and deficiencies, and corrective action lists organized by mark, opening remarks and comments, and related opening images and video recordings.

B. Commissioning and Testing Schedule: Prior to final acceptance of the access control system installation, the following testing and documentation to be performed and provided to the Owner.
   1. Inspection: Verify that units and controls are properly installed, connected, and labeled and that interconnecting wires and terminals are identified.
   2. Pre-testing: Program and adjust the system and pretest all components, wiring, and functions to verify they conform to specified requirements. Provide testing reports indicating devices tested, pass/fail status, and actions taken to resolve problem(s) on failed tests.
   3. Acceptance Test Schedule: Correct deficiencies identified by tests and observations and retest until specified requirements are met.
   4. Provide "as designed" Drawings showing each device and wiring connection and electronic enclosure legends indicating cabling in and out.
   5. Provide a complete set of operating instructions for access control hardware devices and a complete software user manual. The documentation includes module reference guides for each electronic enclosure.

3.5 ADJUSTING

A. Adjust and check each operating item of integrated access control door hardware, and each door opening to ensure proper secured operation and function of every unit. Replace units that cannot be adjusted to operate as intended.

3.6 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by access control system installation.
B. Clean operating items as necessary to restore proper finish and provide final protection and maintain conditions that ensure access control door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

A. Engage an authorized systems manufacturer representative to train Owner's maintenance personnel to adjust, operate, and maintain electronic integrated door hardware and the access control system.

3.8 ACCESS CONTROL HARDWARE SETS

A. The access control system hardware sets listed below represent the design intent and direction of the Owner, Engineer, and security consultant (as applicable). They are intended as a guideline only and should not be considered a detailed opening Schedule. Discrepancies, conflicting, and missing items should be brought to the attention of the Engineer with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
B. The supplier is responsible for handing and sizing all products and providing the correct option for the appropriate door type and material where more than one is presented in the hardware sets. Quantities listed are for each pair of doors or for each single door.
C. Refer to Section 08 71 00 "Door Hardware" for hardware sets.

END OF SECTION


PACKET 7.518 September 12, 2023
PACKET 11.520 November 14, 2023

# SECTION 31 10 00 - SITE CLEARING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Removing surface debris.
   2. Removing above- and below-grade site improvements.
   3. Removing designated trees, schrubs, and other plant life.
   4. Disconnecting, capping or sealing.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 01 50 00 "Temporary Facilities and Controls" for temporary erosion- and sedimentation-control measures.

### 1.2 DEFINITIONS

A. Subsoil: Soil beneath the level of subgrade; soil beneath the topsoil layers of a naturally occurring soil profile typified by less than 1 percent organic matter and few soil organisms.

B. Surface Soil: Soil that is present at the top layer of the existing soil profile. In undisturbed areas, surface soil is typically called "topsoil," but in disturbed areas, such as urban environments, the surface soil can be subsoil.

C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil; the zone where plant roots grow.

D. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil; the zone where plant roots grow. Its appearance is generally friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects larger than 2 inches in diameter; and free of weeds, roots, toxic materials, or other nonsoil materials.

E. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction and indicated on Drawings.

F. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction and indicated on Drawings.

G. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

### 1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

### 1.4 MATERIAL OWNERSHIP

A. Except for materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.5 SUBMITTALS

A. Section 01 33 00 "Submittal Procedures" for requirements for submittals.
B. Product Data: Submit data for herbicide. Indicate compliance with applicable codes for environmental protection.

1.6 INFORMATIONAL SUBMITTALS

A. Existing Conditions: Documentation of existing trees and plantings, adjoining construction, and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.
   1. Use sufficiently detailed photographs or video recordings.
   2. Include Plans and notations to indicate specific wounds and damage conditions of each tree or other plant designated to remain.
B. Topsoil stripping and stockpiling program.
C. Rock stockpiling program.
D. Record Drawings: Identifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions.
E. Burning: Documentation of compliance with burning requirements and permitting of authorities having jurisdiction. Identify location(s) and conditions under which burning will be performed.

1.7 QUALITY ASSURANCE

A. Conform to applicable codes for disposal of debris.
B. Perform Work in accordance with State of Texas Highways standard.
C. Topsoil Stripping and Stockpiling Program: Prepare a written program to systematically demonstrate the ability of personnel to properly follow procedures and handle materials and equipment during the Work. Include dimensioned diagrams for placement and protection of stockpiles.
D. Rock Stockpiling Program: Prepare a written program to systematically demonstrate the ability of personnel to properly follow procedures and handle materials and equipment during the Work. Include dimensioned diagrams for placement and protection of stockpiles.

1.8 FIELD CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
   1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
   2. Provide alternate routes around closed or obstructed trafficways if required by Owner or authorities having jurisdiction.
B. Improvements on Adjoining Property: Authority for performing site clearing indicated on property adjoining Owner's property will be obtained by Owner before award of Contract.
   1. Do not proceed with work on adjoining property until directed by Engineer.
C. Salvageable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.
D. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.

E. Do not commence site clearing operations until temporary erosion- and sedimentation-control measures are in place.
F. Soil Stripping, Handling, and Stockpiling: Perform only when the soil is dry or slightly moist.

## PART 2 - PRODUCTS

2.1 MATERIALS

A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Section 31 20 00 "Earth Moving."
1. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.

## PART 3 - EXECUTION

3.1 PREPARATION

A. Call Local Utility Line Information service not less than 3 workings day before performing Work.
1. Request underground utilities to be located and marked within and surrounding construction areas.

3.2 PREPARATION

A. Protect and maintain benchmarks and survey control points from disturbance during construction.
B. Verify that trees, shrubs, and other vegetation to remain or to be relocated have been flagged and that protection zones have been identified and enclosed according to requirements in Section 01 56 39 "Temporary Tree and Plant Protection."
C. Protect existing site improvements to remain from damage during construction.
1. Restore damaged improvements to their original condition, as acceptable to Owner.
D. Identify waste area for placing removed materials.

3.3 TEMPORARY EROSION AND SEDIMENTATION CONTROL

A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways according to erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.
B. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
C. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

## 3.4 EXISTING UTILITIES

A. Owner will arrange for disconnecting and sealing indicated utilities that serve existing structures before site clearing, when requested by Contractor.
   1. Verify that utilities have been disconnected and capped before proceeding with site clearing.
B. Locate, identify, disconnect, and seal or cap utilities indicated to be removed.
   1. Arrange with utility companies to shut off indicated utilities.
   2. Owner will arrange to shut off indicated utilities when requested by Contractor.
C. Locate, identify, disconnect, cut, and plug utilities indicated to in place.
D. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others, unless permitted under the following conditions, then only after arranging to provide temporary utility services according to requirements indicated:
   1. Notify Engineer not less than 2 days in advance of proposed utility interruptions.
   2. Do not proceed with utility interruptions without Engineer's written permission.
E. Excavate for and remove underground utilities indicated to be removed.
F. Removal of underground utilities is included in earthwork sections, in applicable fire suppression, plumbing, HVAC, electrical, communications, electronic safety and security, and utilities sections.

## 3.5 CLEARING AND GRUBBING

A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.
   1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
   2. Grind down stumps and remove roots larger than 2 inches in diameter, obstructions, and debris to a depth of 18 inches below exposed subgrade.
   3. Use only hand methods or air spade for grubbing within protection zones.
   4. Chip removed tree branches and stockpile in areas approved by Engineer.
   5. Clear undergrowth and deadwood without disturbing subsoil.
   6. Apply herbicide to remaining remaining stumps to inhibit growth.
B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
   1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches and compact each layer to a density equal to adjacent original ground.

## 3.6 TOPSOIL STRIPPING

A. Remove sod and grass before stripping topsoil.
B. Strip topsoil to depth indicated on Drawings in a manner to prevent intermingling with underlying subsoil or other waste materials.
   1. Remove subsoil and nonsoil materials from topsoil including clay lumps, gravel, other objects larger than 2 inches in diameter, trash, debris, weeds, roots, and other waste materials.

C. Stockpile topsoil away from edge of excavations without intermixing with subsoil or other materials. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.
   1. Limit height of topsoil stockpiles to 72 inches.

2. Do not stockpile topsoil within protection zones.
3. Dispose of surplus topsoil. Surplus topsoil is that which exceeds quantity indicated to be stockpiled or reused.
4. Stockpile surplus topsoil to allow for respreading deeper topsoil.
5. Stockpile sufficient quantities of on-site topsoil to later spread a minimum 6-inch-thickness off topsoil on landscaped (non-paved) Project areas.

## 3.7 SITE IMPROVEMENTS

A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate new construction.

B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut along line of existing pavement to remain before removing adjacent existing pavement. Saw-cut faces vertically.
2. Paint cut ends of steel reinforcement in concrete to remain with 2 coats of antirust coating following coating manufacturer's written instructions. Keep paint off surfaces that will remain exposed.

## 3.8 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris and legally dispose of them off Owner's property.

END OF SECTION

# SECTION 31 20 00 - EARTH MOVING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
1. Excavating and filling for rough grading the Site.
2. Preparing subgrades for slabs-on-grade, walks, pavements, turf and grasses, and plants.
3. Excavating and backfilling for buildings and structures.
4. Drainage course for concrete slabs-on-grade.
5. Subbase course for concrete pavements.
6. Subbase course and base course for asphalt paving.
7. Subsurface drainage backfill for walls and trenches.
8. Excavating and backfilling trenches for utilities and pits for buried utility structures.

B. Related Requirements:
1. Division 01 Specification Sections apply to Work of this Section.
2. Section 31 10 00 "Site Clearing" for site stripping, grubbing, stripping and stockpiling topsoil, and removal of above- and below-grade improvements and utilities.

### 1.2 DEFINITIONS

A. Backfill: Soil material or controlled low-strength material used to fill an excavation.
1. Initial Backfill: Backfill placed beside and over pipe in a trench including haunches to support sides of pipe.
2. Final Backfill: Backfill placed over initial backfill to fill a trench.

B. Base Course: Aggregate layer placed between the subbase course and hot-mix asphalt paving.

C. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.

D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

E. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.

F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Engineer. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
2. Bulk Excavation: Excavation more than 10 feet in width and more than 30 feet in length.
3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Engineer. Unauthorized excavation, as well as remedial Work directed by Engineer shall be without additional compensation.

G. Fill: Soil materials used to raise existing grades.

H. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material 3/4 cubic yards or more in volume that exceed a standard penetration resistance of 100 blows/2 inches when tested by a geotechnical testing agency according to ASTM D1586.

I. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.

J. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.

K. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.

L. Utilities: On-site underground pipes, conduits, ducts, and cables as well as underground services within buildings.

1.3 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified testing agency.

B. Material Test Reports: For each on-site and borrow soil material proposed for fill and backfill as follows:
   1. Classification according to ASTM D2487.
   2. Laboratory compaction curve according to ASTM D698.

C. Preexcavation Photographs or Videotape: Show existing conditions of adjoining construction and site improvements including finish surfaces that might be misconstrued as damage caused by earth-moving operations. Submit before earth moving begins.

1.4 FIELD CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earth-moving operations.
   1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
   2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.

B. Utility Locator Service: Notify utility locator service for area where Project is located before beginning earth-moving operations.

C. Do not commence earth-moving operations until temporary site fencing and erosion- and sedimentation-control measures specified in Section 01 50 00 "Temporary Facilities and Controls" and Section 31 10 00 "Site Clearing" are in place.

**PART 2 - PRODUCTS**

2.1 SOIL MATERIALS

A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.

B. Satisfactory Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM according to ASTM D2487, or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.

C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D2487, or a combination of these groups.
   1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.

D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.

E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940; with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.

F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.

G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve.

H. Drainage Course: Narrowly graded mixture of washed crushed stone, or crushed or uncrushed gravel; ASTM D448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2-inch sieve and zero to 5 percent passing a No. 8 sieve.

I. Filter Material: Narrowly graded mixture of natural or crushed gravel, or crushed stone and natural sand; ASTM D448; coarse-aggregate grading Size 67; with 100 percent passing a 1-inch sieve and zero to 5 percent passing a No. 4 sieve.

J. Sand: ASTM C33; fine aggregate.

K. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.

2.2 ACCESSORIES

A. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches-wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored as follows:
   1. Red: Electric.
   2. Yellow: Gas, oil, steam, and dangerous materials.
   3. Orange: Telephone and other communications.
   4. Blue: Water systems.
   5. Green: Sewer systems.

## PART 3 - EXECUTION

3.1 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth-moving operations.

B. Protect and maintain erosion and sedimentation controls during earth-moving operations.

C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.

3.2 DEWATERING

A. Provide dewatering system of sufficient scope, size, and capacity to control hydrostatic pressures and to lower, control, remove, and dispose of ground water and permit excavation and construction to proceed on dry, stable subgrades.

B. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.

C. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.

1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.

D. Dispose of water removed by dewatering in a manner that avoids endangering public health, property, and portions of Work under construction or completed. Dispose of water and sediment in a manner that avoids inconvenience to others.

3.3 EXPLOSIVES

A. Explosives: Do not use explosives.

3.4 EXCAVATION, GENERAL

A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.

1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.
2. Remove rock to lines and grades indicated to permit installation of permanent construction without exceeding the following dimensions:
   a. 24 inches outside of concrete forms other than at footings.
   b. 12 inches outside of concrete forms at footings.
   c. 6 inches outside of minimum required dimensions of concrete cast against grade.
   d. Outside dimensions of concrete walls indicated to be cast against rock without forms or exterior waterproofing treatments.
   e. 6 inches beneath bottom of concrete slabs-on-grade.
   f. 6 inches beneath pipe in trenches and the greater of 24 inches wider than pipe or 42 inches wide.

3.5 EXCAVATION FOR STRUCTURES

A. Excavate to indicate elevations and dimensions within a tolerance of plus or minus 1-inch. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.

1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other Work.

2. Pile Foundations: Stop excavations 6 to 12 inches above bottom of pile cap before piles are placed. After piles have been driven, remove loose and displaced material. Excavate to final grade leaving solid base to receive concrete pile caps.
3. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1-inch. Do not disturb bottom of excavations intended as bearing surfaces.

## 3.6 EXCAVATION FOR WALKS AND PAVEMENTS

A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

## 3.7 EXCAVATION FOR UTILITY TRENCHES

A. Excavate trenches to indicated gradients, lines, depths, and elevations.
   1. Beyond building perimeter, excavate trenches to allow installation of top of pipe below frost line.
B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated.
   1. Clearance: 12 inches each side of pipe or conduit.
C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
   1. For pipes and conduit less than 6 inches in nominal diameter, hand-excavate trench bottoms and support pipe and conduit on an undisturbed subgrade.
   2. For pipes and conduit 6 inches or larger in nominal diameter, shape bottom of trench to support bottom 90 degrees of pipe or conduit circumference. Fill depressions with tamped sand backfill.
   3. For flat-bottomed, multiple-duct conduit units, hand-excavate trench bottoms and support conduit on an undisturbed subgrade.
   4. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

## 3.8 SUBGRADE INSPECTION

A. Notify Engineer when excavations have reached required subgrade.
B. If Engineer determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
C. Proof-roll subgrade below the building slabs and pavements with a pneumatic-tired and loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
   1. Completely proof-roll subgrade in 1 direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.
   2. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Engineer, and replace with compacted backfill or fill as directed.

D. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.

E. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Engineer, without additional compensation.

## 3.9 UNAUTHORIZED EXCAVATION

A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2,500 psi, may be used when approved by Engineer.
   1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by Engineer.

## 3.10 STORAGE OF SOIL MATERIALS

A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
   1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

## 3.11 BACKFILL

A. Place and compact backfill in excavations promptly, but not before completing the following:
   1. Construction below finish grade including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
   2. Surveying locations of underground utilities for Record Documents.
   3. Testing and inspecting underground utilities.
   4. Removing concrete formwork.
   5. Removing trash and debris.
   6. Removing temporary shoring, bracing, and sheeting.
   7. Installing permanent or temporary horizontal bracing on horizontally supported walls.

B. Place backfill on subgrades free of mud, frost, snow, or ice.

## 3.12 UTILITY TRENCH BACKFILL

A. Place backfill on subgrades free of mud, frost, snow, or ice.

B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.

C. Trenches under Footings: Backfill trenches excavated under footings and within 18 inches of bottom of footings with satisfactory soil; fill with concrete to elevation of bottom of footings. Concrete is specified in Section 03 30 00 "Cast-in-Place Concrete."

D. Trenches under Roadways: Provide 4-inch thick, concrete-base slab support for piping or conduit less than 30 inches below surface of roadways. After installing and testing, completely encase piping or conduit in a minimum of 4 inches of concrete before backfilling or placing roadway subbase course. Concrete is specified in Section 03 30 00 "Cast-in-Place Concrete."

E. Backfill voids with satisfactory soil while removing shoring and bracing.

F. Initial Backfill:
   1. Soil Backfill: Place and compact initial backfill of satisfactory soil, free of particles larger than 1 inch in any dimension, to a height of 12 inches over the pipe or conduit.
      a. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.
   2. Controlled Low-Strength Material: Place initial backfill of controlled low-strength material to a height of 12 inches over the pipe or conduit. Coordinate backfilling with utilities testing.

G. Final Backfill:
   1. Soil Backfill: Place and compact final backfill of satisfactory soil to final subgrade elevation.

H. Warning Tape: Install warning tape directly above utilities 12 inches below finished grade except 6 inches below subgrade under pavements and slabs.

## 3.13 SOIL FILL

A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.

B. Place and compact fill material in layers to required elevations as follows:
   1. Under grass and planted areas, use satisfactory soil material.
   2. Under walks and pavements, use satisfactory soil material.
   3. Under steps and ramps, use engineered fill.
   4. Under building slabs, use engineered fill.
   5. Under footings and foundations, use engineered fill.

C. Place soil fill on subgrades free of mud, frost, snow, or ice.

## 3.14 SOIL MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
   1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
   2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

## 3.15 COMPACTION OF SOIL BACKFILLS AND FILLS

A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment and not more than 4 inches in loose depth for material compacted by hand-operated tampers.

B. Place backfill and fill soil materials evenly on all sides of structures to required elevations and uniformly along the full length of each structure.

C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D698:

1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent.
2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 92 percent.
3. Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 85 percent.
4. For utility trenches, compact each layer of initial and final backfill soil material at 85 percent.

## 3.16 GRADING

A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
   1. Provide a smooth transition between adjacent existing grades and new grades.
   2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.

B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to elevations required to achieve indicated finish elevations, within the following subgrade tolerances:
   1. Turf or Unpaved Areas: Plus or minus 1 inch.
   2. Walks: Plus or minus 1 inch.
   3. Pavements: Plus or minus 1/2-inch.

C. Grading inside Building Lines: Finish subgrade to a tolerance of 1/2-inch when tested with a 10-foot straightedge.

## 3.17 SUBBASE AND BASE COURSES UNDER PAVEMENTS AND WALKS

A. Place subbase course and base course on subgrades free of mud, frost, snow, or ice.

B. On prepared subgrade, place subbase course and base course under pavements and walks as follows:
   1. Place base course material over subbase course under hot-mix asphalt pavement.
   2. Shape subbase course and base course to required crown elevations and cross-slope grades.
   3. Place subbase course and base course 6 inches or less in compacted thickness in a single layer.
   4. Place subbase course and base course that exceeds 6 inches in compacted thickness in layers of equal thickness with no compacted layer more than 6 inches thick or less than 3 inches thick.

C. Pavement Shoulders: Place shoulders along edges of subbase course and base course to prevent lateral movement. Construct shoulders, at least 12 inches wide of satisfactory soil materials and compact simultaneously with each subbase and base layer to not less than 95 percent of maximum dry unit weight according to ASTM D698.

## 3.18 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified geotechnical engineering testing agency to perform tests and inspections.

B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed Work comply with requirements.

C. Footing Subgrade: At footing subgrades, at least 1 test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Engineer.

D. Testing agency will test compaction of soils in place according to ASTM D1556, ASTM D2167, ASTM D2937, and ASTM D6938, as applicable. Tests will be performed at the following locations and frequencies:

1. Paved and Building Slab Areas: At subgrade and at each compacted fill and backfill layer, at least 1 test for every 2,000 sq. ft. or less of paved area or building slab but in no case fewer than 3 tests.
2. Foundation Wall Backfill: At each compacted backfill layer, at least 1 test for every 100 feet or less of wall length but no fewer than 2 tests.
3. Trench Backfill: At each compacted initial and final backfill layer, at least 1 test for every 150 feet or less of trench length but no fewer than 2 tests.

E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; recompact and retest until specified compaction is obtained.

## 3.19 PROTECTION

A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.

B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.

1. Scarify or remove and replace soil material to depth as directed by Engineer; reshape and recompact.

C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.

1. Restore appearance, quality, and condition of finished surfacing to match adjacent Work, and eliminate evidence of restoration to greatest extent possible.

## 3.20 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION

# SECTION 31 22 13 - ROUGH GRADING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Excavating topsoil.
   2. Excavating subsoil.
   3. Cutting, grading, filling, rough contouring, and compacting site for site structures and building pads.

B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 31 10 00 "Site Clearing" for excavating topsoil.
   3. Section 31 23 23 "Fill" for general building area backfilling.

### 1.2 REFERENCES

A. ASTM International:
   1. ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
   2. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3).
   3. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
   4. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN-m/m3).
   5. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
   6. ASTM D2419 - Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate.
   7. ASTM D2434 - Standard Test Method for Permeability of Granular Soils (Constant Head).
   8. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
   9. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

### 1.3 SUBMITTALS

A. Section 01 33 00 "Submittal Procedures."
B. Samples: Submit, in air-tight containers, 10-pound sample of each type of fill to testing laboratory.
C. Materials Source: Submit name of imported materials suppliers.
D. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.4 SUSTAINABLE DESIGN SUBMITTALS

A. Manufacturer's Certificate: Certify products meet or exceed specified sustainable design requirements.

1.5 CLOSEOUT SUBMITTALS

A. Section 01 70 00 "Execution and Closeout Requirements" for requirements for submittals.
B. Project Record Documents: Accurately record actual locations of utilities remaining by horizontal dimensions, elevations or inverts, and slope gradients.

1.6 QUALITY ASSURANCE

A. Perform Work in accordance with ASTM C136, ASTM D2419, and ASTM D2434.
B. Perform Work in accordance with Highways standard.

**PART 2 - PRODUCTS**

2.1 MATERIALS

A. Topsoil: Type S3 as specified in Section 31 05 13 "Soils for Earthwork."
B. Subsoil Fill: Type as specified in Section 31 05 13 "Soils for Earthwork."
C. Structural Fill: Type as specified in Section 31 05 13 "Soils for Earthwork."

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Section 01 30 00 "Administrative Requirements" for verification of existing conditions before starting work.
B. Verify survey benchmark and intended elevations for Work are as indicated on Drawings.

3.2 PREPARATION

A. Call Local Utility Line Information service not less than 3 working days before performing Work.
   1. Request underground utilities to be located and marked within and surrounding construction areas.
B. Identify required lines, levels, contours, and datum.
C. Notify utility company to remove and relocate utilities.
D. Protect utilities indicated to remain from damage.

E. Protect plant life, lawns, rock outcropping, and other features remaining as portion of final landscaping.
F. Protect bench marks, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

3.3 SUBSOIL EXCAVATION

A. Excavate subsoil from areas to be further excavated, relandscaped, or regraded.
B. Do not excavate wet subsoil or excavate and process wet material to obtain optimum moisture content.
C. When excavating through roots, perform Work by hand and cut roots with sharp axe.
D. Remove excess subsoil not intended for reuse from site.
E. Stockpile subsoil in area designated on site to depth not exceeding 8 feet and protect from erosion.
F. Benching Slopes: Horizontally bench existing slopes greater than 1:4 to key placed fill material to slope to provide firm bearing.
G. Stability: Replace damaged or displaced subsoil as specified for fill.

3.4 FILLING

A. Fill areas to contours and elevations with unfrozen materials.
B. Install Work in accordance with Highways standards.

3.5 TOLERANCES

A. Section 01 40 00 "Quality Requirements" for tolerances.
B. Top Surface of Subgrade: Plus or minus 1/10-foot from required elevation.

3.6 FIELD QUALITY CONTROL

A. Section 01 40 00 "Quality Requirements" for field inspecting, testing, adjusting, and balancing.
B. Perform laboratory material tests in accordance with ASTM D1557.
C. Perform in place compaction tests in accordance with the following:
    1. Density Tests: ASTM D2922.
    2. Moisture Tests: ASTM D3017.
D. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.
    1. Paved and Building Slab Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 2,000 square feet or less of paved area or building slab, but in no case fewer than three tests.
    2. Foundation Walk Backfill: At each compacted backfill layer, at least one test for every 100 feet or less of wall length, but no fewer than two tests.
    3. Trench Backfill: At each compacted initial and final backfill layer, at least one tesst for every 150 feet or less of trench length but no fewer than two tests.

END OF SECTION

# SECTION 31 23 23 - FILL

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Backfilling building perimeter to subgrade elevations.
   2. Backfilling site structures to subgrade elevations.
   3. Fill under slabs on grade.
   4. Fill under paving.
   5. Fill for over-excavation.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 03 30 00 "Cast-in-Place Concrete" for concrete materials.
   3. Section 31 22 13 "Rough Grading" for Site filling.

### 1.2 REFERENCE STANDARDS

A. American Association of State Highway and Transportation Officials:
   1. AASHTO T 180 - Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg Rammer and a 457-mm Drop.

B. ASTM International:
   1. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3).
   2. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method.
   3. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3).
   4. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
   5. ASTM D6031 - Standard Test Method for Logging In Situ Moisture Content and Density of Soil and Rock by the Nuclear Method in Horizontal, Slanted, and Vertical Access Tubes.
   6. ASTM D6938 - Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Section 01 70 00 "Execution and Closeout Requirements" for installation examination.

B. Verify that subdrainage, dampproofing, and waterproofing installations have been inspected.

C. Verify that underground tanks are anchored to their own foundations to avoid flotation after backfilling.

D. Verify structural integrity of unsupported walls to support loads imposed by fill.

## 3.2 PREPARATION

A. Section 01 70 00 "Execution and Closeout Requirements" for installation preparation.
B. Compact subgrade to specified density requirements for subsequent backfill materials.
C. Soft Subgrade:
   1. Cut out soft areas of subgrade not capable of compaction in place.
   2. Backfill with structural fill and compact to density equal to or greater than specified requirements for subsequent fill material.
D. Scarify subgrade surface to depth of 6 inches.

## 3.3 BACKFILLING

A. Backfill areas to contours and elevations.
B. Systematically backfill to allow maximum time for natural settlement.
C. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces and do not backfill with frozen materials.
D. Place fill material in continuous layers and compact.
E. Use placement method that does not disturb or damage tilities in trench.
F. Maintain optimum moisture content of fill materials to attain required compaction density.
G. Structures:
   1. Backfill against supported foundation walls.
   2. Backfill simultaneously on each side of unsupported foundation walls until supports are in place.
   3. Slope grade away from building minimum 2 percent slope for minimum distance of 10 feet.
H. Make gradual grade changes and blend slope into level areas.
I. Remove surplus backfill materials from Site.
J. Leave fill material stockpile areas free of excess fill materials.

## 3.4 TOLERANCES

A. Section 01 40 00 "Quality Requirements" for tolerances.
B. Top Surface of Backfilling within Building Areas: Plus or minus 1 inch from required elevations.
C. Top Surface of Backfilling under Paved Areas: Plus or minus 1 inch from required elevations.
D. Top Surface of General Backfilling: Plus or minus 1 inch from required elevations.

## 3.5 PROTECTION

A. Section 01 70 00 "Execution and Closeout Requirements" for protecting finished Work.
B. Reshape and recompact fills subjected to vehicular traffic during construction.

END OF SECTION

# SECTION 32 11 23 - AGGREGATE BASE COURSES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Aggregate subbase.
   2. Aggregate base course.

B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 31 22 13 "Rough Grading" for preparation of site for base course.
   3. Section 32 05 16 "Aggregates for Exterior Improvements."
   4. Section 32 12 16 "Asphalt Paving:" Finish asphalt courses.

### 1.2 REFERENCES

A. American Association of State Highway and Transportation Officials:
   1. AASHTO M288 - Standard Specification for Geotextile Specification for Highway Applications.

B. ASTM International:
   1. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
   2. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
   3. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
   4. ASTM D2940 - Standard Specification for Graded Aggregate Material For Bases or Subbases for Highways or Airports.
   5. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

### 1.3 SUBMITTALS

A. Section 01 33 00 "Submittal Procedures."

B. Product Data:
   1. Submit data for geotextile fabric and herbicide.

C. Samples: Submit, in air-tight containers, 10-pound sample of each type of aggregate fill to testing laboratory.

D. Materials Source: Submit name of aggregate materials suppliers.

E. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

### 1.4 QUALITY ASSURANCE

A. Furnish each aggregate material from single source throughout the Work.

B. Perform Work according to State of Texas Highways standards.

C. Maintain 1 copy of each document on site.

## PART 2 - PRODUCTS

2.1 AGGREGATE MATERIALS

A. Conform with requirementss of Type A, Grades 1 or 2, Item 247 of the TxDOT Standard Specifications for Construction of Highways, Street, and Bridges.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 30 00 "Administrative Requirements" for verification of existing conditions before starting Work.
B. Verify compacted substrate is dry.
   1. Proof roll substrate with in minimum 3 perpendicular passes to identify soft spots.
   2. Remove soft substrate and replace with compacted fill as specified in Section 31 23 23 "Fill."
C. Verify substrate has been inspected, gradients and elevations are correct.

3.2 PREPARATION

A. Correct irregularities in substrate gradient and elevation by scarifying, reshaping, and re-compacting.
B. Do not place fill on soft, muddy, or frozen surfaces.

3.3 AGGREGATE PLACEMENT

A. Spread aggregate over prepared substrate to total compacted thickness indicated on Drawings.
B. Roller compact aggregate to 95 percent maximum density.
C. Level and contour surfaces to elevations, profiles, and gradients indicated.
D. Add small quantities of fine aggregate to coarse aggregate when required to assist compaction.
E. Maintain optimum moisture content of fill materials to attain specified compaction density.
F. Use mechanical tamping equipment in areas inaccessible to compaction equipment.

3.4 TOLERANCES

A. Section 01 40 00 "Quality Requirements" for tolerances.
B. Maximum Variation From Flat Surface: 1/2-inch measured with 10-foot straight edge.
C. Maximum Variation From Thickness: 1/4-inch.
D. Maximum Variation From Elevation: 1/2-inch.

3.5 FIELD QUALITY CONTROL

A. Section 01 70 00 "Execution and Closeout Requirements" for field inspecting, testing, adjusting, and balancing.
B. Compaction testing will be performed according to ASTM D1557.

C. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.

D. Frequency of Tests: One test for every 1,000 square yards of each layer compacted aggregate.

3.6 COMPACTION

A. Compact materials to 98 percent of maximum density as determined from test strip, according to ASTM D2940.

END OF SECTION

# SECTION 32 12 16 - ASPHALT PAVING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Asphalt materials.
   2. Aggregate materials.
   3. Aggregate subbase.
   4. Asphalt paving base course, binder course, and wearing course.
   5. Asphalt paving overlay for existing paving.
   6. Surface slurry.

B. Related Requirement:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 31 22 13 "Rough Grading" for preparation of site for paving.
   3. Section 32 11 23 "Aggregate Base Courses" for compacted subbase for paving.

### 1.2 REFERENCE STANDARDS

A. AASHTO M17 - Standard Specification for Mineral Filler for Bituminous Paving Mixtures.
B. AASHTO M29 - Standard Specification for Fine Aggregate for Bituminous Paving Mixtures.
C. AASHTO M140 - Standard Specification for Emulsified Asphalt.
D. AASHTO M208 - Standard Specification for Cationic Emulsified Asphalt.
E. AASHTO M288 - Standard Specification for Geotextile Specification for Highway Applications.
F. AASHTO M320 - Standard Specification for Performance-Graded Asphalt Binder.
G. AASHTO M324 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
H. AASHTO MP1a - Standard Specification for Performance-Graded Asphalt Binder.
I. AI MS-2 - Mix Design Methods for Asphalt Concrete and Other Hot- Mix Types.
J. AI MS-19 - Basic Asphalt Emulsion Manual.
K. AI SP-2 - Superpave Mix Design.
L. ASTM C1371-2004a - Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers.
M. ASTM C1549-16 - Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer.
N. ASTM D242 - Standard Specification for Mineral Filler For Bituminous Paving Mixtures.
O. ASTM D692 - Standard Specification for Coarse Aggregate for Bituminous Paving Mixtures.
P. ASTM D946 - Standard Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction.
Q. ASTM D977 - Standard Specification for Emulsified Asphalt.
R. ASTM D1073 - Standard Specification for Fine Aggregate for Bituminous Paving Mixtures.

S. ASTM D1188 - Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Coated Samples
T. ASTM D2027 - Standard Specification for Cutback Asphalt (Medium-Curing Type).
U. ASTM D2397 - Standard Specification for Cationic Emulsified Asphalt.
V. ASTM D2726 - Standard Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures.
W. ASTM D2950 - Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods.
X. ASTM D3381 - Standard Specification for Viscosity-Graded Asphalt Cement for Use in Pavement Construction.
Y. ASTM D3515 - Standard Specification for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures.
Z. ASTM D3549 - Standard Test Method for Thickness or Height of Compacted Bituminous Paving Mixture Specimens.
AA. ASTM D3910 - Standard Practices for Design, Testing, and Construction of Slurry Seal.
BB. ASTM D6690 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
CC. ASTM E408-2019 - Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques.
DD. ASTM E903-2012 - Standard Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres.
EE. ASTM E1918-2016 - Standard Test Method for Measuring Solar Reflectance of Horizontal and Low-Sloped Surfaces in the Field.
FF. ASTM E1980-2019 - Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces.
GG. Texas Department of Transportation (TxDOT) Standard Specifications for Construction of Highways, Streets, and Bridges, 2014 edition.

## 1.3 SUBMITTALS

A. Section 01 33 00 "Submittal Procedures."
B. Product Data:
   1. Submit product information for asphalt and aggregate materials.
   2. Submit mix design with laboratory test results supporting design.
C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

## 1.4 QUALITY ASSURANCE

A. Mixing Plant: Conform to State of Texas Highways standard.

## 1.5 QUALIFICATIONS

A. Installer: Company specializing in performing Work of this Section with minimum 5 years' documented experience.

1.6 AMBIENT CONDITIONS

A. Section 01 50 00 "Temporary Facilities and Controls" for ambient conditions control facilities for product storage and installation.
B. Do not place asphalt mixture between November 1 and March 1.
C. Do not place asphalt mixture when ambient air or base surface temperature is less than 40 degrees F, or surface is wet or frozen.
D. Place asphalt mixture when temperature is not more than 15 degrees F less than initial mixing temperature.

**PART 2 - PRODUCTS**

2.1 ASPHALT PAVING

A. Performance / Design Criteria:
   1. Paving: Design for movement of trucks up to 30,000 pounds.
B. Asphalt Materials:
   1. Asphalt Binder: In accordance with State of Texas Highways standards.
   2. Primer: ASTM D2027, MC-70; medium curing, cutback asphalt. In accordance with State of Texas Highways standards.
   3. Tack Coat: In accordance with State of Texas Highways standards.
   4. Reclaimed Asphalt Pavement (RAP): Processed material obtained by milling or full depth removal of existing asphalt paving.
   5. Oil: In accordance with Municipality of Highways standards.
C. Aggregate Materials:
   1. Coarse Aggregate: In accordance with State of TexasHighways standards.
   2. Fine Aggregate: ASTM D1073; natural sand or sand manufactured from stone, gravel, or blast furnace slag.
D. Aggregate Subbase: Specified in Section 32 11 23 "Aggregate Base Courses."

2.2 MIXES

A. Use dry material to avoid foaming. Mix uniformly.
B. Asphalt Paving Mixtures: Designed in accordance with State of Texas Highways standards with maximum 5 percent by weight reclaimed asphalt pavement.
   1. Base Course: Type A, Grades 1 or 2 of Item 247 of the TxDOT Standard Specifications for Construction of Highways, Street, and Bridges..
   2. Surface Course.

2.3 ACCESSORIES

A. Geotextile Fabric: AASHTO M288; non-woven, polypropylene.
B. Sealant: ASTM D6690, Type I; hot applied type.

2.4 SOURCE QUALITY CONTROL

A. Section 01 40 00 "Quality Requirements" for testing, inspection and analysis requirements.
B. Submit proposed mix design of each class of mix for review prior to beginning of Work.
C. Test samples in accordance with AI MS-2.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 70 00 "Execution and Closeout Requirements:" Requirements for installation examination.
B. Verify utilities indicated under paving are installed with excavations and trenches backfilled and compacted.
C. Verify compacted subgrade subbase is dry.
   1. Proof roll subbase with in minimum 2 perpendicular passes to identify soft spots.
   2. Remove soft subbase and replace with compacted fill as specified in Section 31 23 23 "Fill."
D. Verify gradients and elevations of base are correct.

3.2 PREPARATION

A. Prepare subbase in accordance with State of Texas Highways standards. TxDOT Standard Specifications of Construction of Highways, Streets, and Bridges.

3.3 INSTALLATION

A. Subbase:
   1. Aggregate Subbase: Install as specified in Section 32 11 23 "Aggregate Base Courses."
   2. Prepare subbase in accordance with State of Texas Highways standards.
B. Primer:
   1. Apply primer in accordance with AI MS-2. State of Texas Highways standards.
C. Tack Coat:
   1. Apply tack coat in accordance with AI State of Texas Highways standards.
D. Single Course Asphalt Paving:
   1. Install Work in accordance with State of Texas Highways standards.
   2. Place asphalt within 24 hours of applying primer or tack coat.
   3. Place asphalt wearing course to thickness indicated on Drawings.
   4. Compact paving by rolling to specified density. Do not displace or extrude paving from position. Hand compact in areas inaccessible to rolling equipment.
   5. Perform rolling with consecutive passes to achieve even and smooth finish without roller marks.
E. Double Course Asphalt Paving:
   1. Place asphalt binder course within 24 hours of applying primer or tack coat.
   2. Place binder course to thickness indicated on Drawings.
   3. Place wearing course within 24 hours of placing and compacting binder course. When binder course is placed more than 24 hours before placing wearing course, clean surface and apply tack coat before placing wearing course.
   4. Place wearing course to thickness indicated on Drawings.
   5. Compact each course by rolling to specified density. Do not displace or extrude paving from position. Hand compact in areas inaccessible to rolling equipment.
   6. Perform rolling with consecutive passes to achieve even and smooth finish, without roller marks.

F. Surface Slurry:
   1. Install uniform thickness surface slurry over existing paving in accordance with ASTM D3910.
G. Allow slurry to cure.
   1. Roll paving to achieve uniform surface.

3.4 TOLERANCES

A. Section 01 40 00 "Quality Requirements."
B. Flatness: Maximum variation of 1/4-inch measured with 10-foot straight edge.
C. Scheduled Compacted Thickness: Within 1/4-inch.
D. Variation from Indicated Elevation: Within 1/2-inch.

3.5 FIELD QUALITY CONTROL

A. Take samples and perform tests including mat density tests in accordance with State of TexasHighways standards.
B. Asphalt Paving Mix Temperature: Measure temperature at time of placement.
C. Asphalt Paving Thickness: ASTM D3549; test one core sample from every 1,000 square yards compacted paving.
D. Asphalt Paving Density: ASTM D1188 or ASTM D2726; test 1 core sample from every 1,000 square yards compacted paving.

3.6 PROTECTION

A. Section 01 70 00 "Execution and Closeout Requirements" for protecting finished Work.
B. Immediately after placement, protect paving from mechanical injury for 8 hours or until surface temperature is less than 140 degrees F.

END OF SECTION

# SECTION 32 13 13 - CONCRETE PAVING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes concrete pavement, curb and gutter.
B. Section Applies:
   1. Where Contractor elects to remove, or required to remove, and replace concrete pavement, curb and gutter, driveway (alleys), and sidewalks.
   2. For repair or replacing facilities otherwise damaged by Contractor operations.
C. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 03 30 00 "Cast-in-Place Concrete."
   3. Section 32 12 16 "Asphalt Paving."

### 1.2 DEFINITIONS

A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, expansive hydraulic cement, fly ash and other pozzolans, ground granulated blast-furnace slag, and silica fume.
B. TxDOT: Texas Department of Transportation "Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges" 2014.
C. DMS: TxDOT Department of Material Specifications.

### 1.3 SUBMITTALS

A. Submit product data per Section 01 33 00 "Submittal Procedures."
B. Product Data: For each type of manufactured material and product indicated.
C. Design Mixes: For each concrete pavement mix. Include alternate mix designs when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments. Design shall indicate target unit weight of mix. Mix design shall not be in excess of 30 days old without Engineer approval.
D. Design mix submittals shall include:
   1. Fine aggregate gradation.
   2. Course aggregate gradation.
   3. Loss from five-cycle magnesium sulfate or sodium sulfate test on all aggregate.
   4. Cement content.
   5. Fly ash content.
   6. Water content.
   7. All admixtures.
   8. Maximum slump.
   9. Percent air entrainment.
   10. Seven-day flexural strength.
   11. Seven-day compressive strength.
   12. 28-day compressive strength.

E. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated, based on flexural and comprehensive testing of current materials:
   1. Cementitious materials and aggregates.
   2. Steel reinforcement and reinforcement accessories.
   3. Fiber reinforcement.
   4. Admixtures.
   5. Curing compounds.
   6. Applied finish materials.
   7. Bonding agent or adhesive.
   8. Joint fillers.

F. Paving and Quality Control Plan (PQCP): Submit a PQCP for approval before beginning pavement construction operations. Include details of all operations in concrete paving process, including longitudinal construction joint layout, sequencing, curing, lighting, early opening, leave-outs, sawing, inspection, testing, construction methods, other details and description of all equipment. List certified personnel performing testing. Submit revisions to PQCP for approval.

## 1.4 QUALITY ASSURANCE

A. Installer Qualifications: Experienced installer who completed pavement work similar in material, design, and extent to that indicated for Project and whose work resulted in construction with a record of successful in-service performance.

B. Manufacturer Qualifications: Manufacturer of ready-mixed concrete products complying with ASTM C94 requirements for production facilities and equipment.
   1. Manufacturer must be certified per National Ready-Mix Concrete Association's Plant Certification Program.
   2. Inspection report signed and sealed by a licensed Professional Engineer showing concrete measuring, mixing, and delivery equipment meets all requirements of ASTM C94. New certification or signed/sealed report required every time plant is moved. Provide copy of certification or signed/sealed inspection report to Engineer.
   3. When equipment or facilities fail to meet specification requirements, remove from service until corrected.

C. Testing Agency Qualifications: Independent testing agency, acceptable to authorities having jurisdiction.

D. Source Limitations: Obtain each type or class of cementitious material of same brand from same manufacturer's plant and each aggregate from one source. For changes in material, brand, source, or chemical admixtures, reevaluate mix as a new mix design.

E. ACI Publications: Comply with ACI 301, "Specification for Structural Concrete," unless modified by Contract Document requirements. Refer to Section 03 30 00 "Cast-In-Place Concrete," for additional codes and standards.

F. Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests and design concrete mixes.

## 1.5 PROJECT CONDITIONS

A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities and emergency services.

## PART 2 - PRODUCTS

2.1 FORMS

A. Pavement Forms: Provide metal side forms of sufficient cross section, strength and rigidity to support paving equipment and resist impact and vibration of operation without visible springing or settlement. Use forms free from kinks, bonds, or warps that affect ride quality or alignment.
   1. Use flexible or curved forms for curves of a radius 100 feet or less.
   2. Forms should be no less than 10 feet in length.

2.2 PLACING, CONSOLIDATING, AND FINISHING EQUIPMENT

A. Provide approved self-propelled paving equipment to uniformly distribute concrete with minimal segregation and provide a smooth machine-finished consolidated concrete pavement conforming to plan line and grade. Provide approved automatic grade control system on slip-forming equipment. Provide approved mechanically-operated finishing floats to produce a uniformly-smooth pavement surface. Provide equipment to provide fine, light-water fog mist.

B. Provide mechanically-operated vibratory equipment to adequately consolidate concrete. Provide immersion vibrators on paving equipment at sufficiently close intervals to provide uniform vibration and consolidation of concrete over entire width and depth of pavement per manufacturer recommendations. Provide immersion vibrator units to operate at least 8,000 cycles per minute frequency in air. Provide enough hand-operated immersion vibrators for timely and proper consolidation of concrete along forms, at joints, and areas not covered by other vibratory equipment. Surface vibrators may be used to supplement equipment-mounted immersion vibrators. Provide tachometers to verify proper operation of all vibrators.

C. For small/irregular areas or when approved, paving equipment described herein not required.

2.3 REINFORCING STEEL INSERTING EQUIPMENT

A. Inserting equipment may not be used in place of two-piece tie bars or drilled and epoxy bars.

2.4 TEXTURING EQUIPMENT

A. Carpet Drag. Provide carpet drag mounted on Work bridge or moveable support system. Provide single piece of carpet of sufficient transverse length to span full width of pavement placed and adjustable so a sufficient longitudinal length of carpet is in contact with concrete placed to produce desired texture. Obtain approval to vary length and width of carpet to accommodate specific applications. Use artificial grass-type carpet with molded polyethylene pile face with a 5/8- to 1-inch blade length, minimum 70-ounce-per-square-yard weight, and strong, durable, rot-resistant backing material bonded to facing.

B. Tining Equipment. Provide self-propelled transverse metal tine device equipped with 4- to 6-inch steel tines and with cross-section approximately 1/32-inch thick by 1/12-inch wide, spaced at 1 inch center-to-center. Only use hand-operated tining equipment to produce equivalent texture on small or irregularly-shaped areas or, when permitted, in emergencies due to equipment breakdown.

2.5 CURING EQUIPMENT

A. Provide self-propelled machine for applying membrane curing compound using mechanically-pressurized spraying equipment with atomizing nozzles. Provide equipment and controls to maintain required uniform rate of application over entire paving area. Provide curing equipment independent of all other equipment when production rates are so the first application of membrane curing compound cannot be accomplished immediately after texturing and after free moisture disappears. Only use hand-operated pressurized spraying equipment with atomizing nozzles on small or irregular areas or, when permitted, in emergencies due to equipment breakdown.

2.6 SAWING EQUIPMENT

A. Provide power-driven concrete saws to saw joints shown on Plans. Provide standby power-driven concrete saws during concrete sawing operations. Provide adequate illumination for nighttime sawing.

2.7 GRINDING EQUIPMENT

A. When required, provide self-propelled powered grinding equipment specifically designed to smooth and texture concrete pavement using circular diamond blades. Provide equipment with automatic grade control to grind at least a 3-foot-width longitudinally in each pass without damaging concrete.

2.8 TESTING EQUIPMENT

A. Provide testing equipment regardless of job-control testing responsibilities per TxDOT Item 421, "Hydraulic Cement Concrete," unless otherwise shown in Plans or specified.

2.9 CORING EQUIPMENT

A. When required, provide coring equipment to extract cores per requirements of Tex-424-A.

2.10 MISCELLANEOUS EQUIPMENT

A. Furnish both 10- and 15-foot steel or magnesium long-handled standard straightedges. Furnish enough Work bridges, long enough to span pavement, for finishing and inspection operations. Furnish date stencils to impress pavement placement dates into fresh concrete, with numerals approximately 2 inches high by 1 inch wide by 1/4-inch deep.

2.11 STEEL REINFORCEMENT

A. Plain-Steel Welded Wire Fabric: ASTM A185, fabricated from as-drawn steel wire into flat sheets, shall be 6- by 6-inch, 10-gauge welded wire fabric, or as shown on Plans.
B. Reinforcement Bars: ASTM A615, Grade 60, deformed.

C. Joint Dowel Bars: Plain steel bars, ASTM A615, Grade 60. Cut bars true to length with ends square and free of burrs.
D. Tie Bars: ASTM A615, Grade 60, deformed.
E. Hook Bolts: ASTM A307, Grade A, internally and externally threaded. Design hook-bolt joint assembly to hold coupling against pavement form and in position during concreting operations, and permit removal without damage to concrete or hook bolt.
F. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcement bars, welded-wire fabric, and dowels in place. Manufacture bar supports per CRSI "Manual of Standard Practice," from steel wire, plastic, or precast concrete or fiber-reinforced concrete of greater compressive strength than concrete, and:
   1. Equip wire bar supports with sand plates or horizontal runners where base material will not support chair legs.
   2. Space reinforcing supports at 5-foot maximum in any direction.
   3. Place vertical reinforcement supports drilled into sub-base material to prevent horizontal movement of reinforcing steel.

## 2.12 CONCRETE MATERIALS

A. Use same brand and type of cementitious material from same manufacturer throughout Project.
B. Portland Cement: ASTM C150, Types I, II, or III or ASTM G176 IA, IIA, or IIIA for air entrained. Fly ash may be substituted at up to a 30 percent rate by absolute volume of cement. Portland cement concrete should have minimum seven-day compressive strength of 3,500 psi or minimum 28-day compressive strength of 4,400 psi. Concrete material should comply with TXDOT Standard Specifications 2014, Item 360.
C. Aggregate: ASTM C33, uniformly graded, from a single source, as follows:
   1. Class: 4M.
   2. Maximum Aggregate Size: 1-1/2 inches nominal.
   3. Coarse aggregate for Class C or D concrete shall be crushed limestone (Brownwood type or equivalent). Aggregate shall be graded fine-to-coarse and conform to ASTM C136. Gradation for aggregate shall meet these requirements by weight:

| FINE AGGREGATE | | COARSE AGGREGATE | |
|---|---|---|---|
| Sieve | Percent Passing | Sieve | Percent Passing |
| 3/8-inch | 100 | 2 inch | 100 |
| No. 4 | 95-100 | 1-1/2 Inch | 100 |
| No. 8 | 80-100 | | |
| No. 16 | 50-85 | 3/4-inch | 35-70 |
| No. 30 | 25-60 | 3/8-inch | 10-30 |
| No. 50[1] | 5-30 | No. 4 | 0-5 |
| No. 100 | 0-10 | | |
| No. 200[2] | 0-3 | | |

[1] Range is 6-35 when sand equivalent volume is greater than 85.
[2] Range is 0-6 for manufactured sand.

   a. Maximum amounts of organic impurities shall conform to ASTM C40 and C87. Maximum amounts of impurities finer than #200 sieve shall conform to ASTM C117. Maximum amounts of soft particles shall conform to ASTM C123. Maximum amounts of friable particles shall conform to ASTM C142.
   b. Fine aggregate shall have sand equivalent at least 80 per Tex-203-F. Provide fine aggregate with fineness modules 2.3 - 3.1 per ASTM C33.

c. Protect stockpiles from dusty conditions by drift fences or other methods approved by Engineer. Stockpiling methods used shall not allow aggregate to roll down slope as added to existing stockpiles. Build stockpiles in layers of uniform thickness. Equipment not permitted to operate over same lift repeatedly.

4. Coarse aggregate shall have maximum 18 percent loss when subjected to five cycles of magnesium sulfate soundness test or maximum 12 percent loss when subjected to five cycles of a sodium sulfate soundness test (ASTM C88).
5. Percentage of wear shall be no more than 40 when tested per ASTM C131 or C535.
6. Aggregates delivered to mixer shall consist of crushed stone, crushed gravel, or natural sand. Crushing shall result in a product where coarse aggregate shall have at least 95 percent by weight of particles with one or more fractured faces and 75 percent by weight of particles with two or more fractured faces. Aggregate shall be composed of sound, tough, durable particles and meet requirements for deleterious substances given in ASTM C33. Aggregate in any size group shall not contain more than 8 percent by weight of flat or elongated pieces. A flat or elongated particle has a ratio between maximum and minimum dimensions of circumscribing rectangular prism exceeding 3 to 1.

D. Water: ASTM C94.

## 2.13 ADMIXTURES

A. Admixtures certified by manufacturer to contain no more than 0.1 percent water-soluble chloride ions by mass of cement and compatible with other admixtures.
B. Air-Entraining Admixture: ASTM C260. Certified by manufacturer compatible with other required admixtures.
C. Water-Reducing Admixture: ASTM C494, Type A.
D. High-Range, Water-Reducing Admixture: ASTM C494, Types F or G.
E. Water-Reducing and Accelerating Admixture: ASTM C494, Type E.
F. Water-Reducing and Retarding Admixture: ASTM C494, Type D.

## 2.14 FIBER REINFORCEMENT

A. Only use fiber reinforcement in place of wire mesh if approved by Engineer and Owner.
B. Fiber reinforcement shall be 100 percent virgin polypropylene, collated, fibrillated fibers, made for use as concrete reinforcement, containing no reprocessed olefin materials, and conforming to ASTM C1116, Type III.
C. Specific gravity: .91.
D. Tensile Strength: 70,000 - 100,000 psi.
E. Length: 2 inches.

## 2.15 CURING COMPOUND

A. Liquid-type membrane-forming curing compound with white pigment complying with ASTM C309, Type 2, Class A. Moisture loss not more than 1.0 pound per square yard when applied at 200 square feet per gallon.

## 2.16 EPOXY

A. Provide Type III epoxy per DMS-6100, "Epoxies and Adhesives," for installing all drilled-in reinforcing steel.

2.17 EVAPORATION RETARDANT

A. Provide evaporation retardant per DMS-4650, "Hydraulic Cement Concrete Curing Materials and Evaporation Retardants."

2.18 JOINT SEALANTS AND FILLERS

A. Provide Class 5 or 8 joint-sealant materials and fillers unless otherwise shown on Plans or approved and other sealant materials of size, shape, and type shown on Plans per DMS-6310, "Joint Sealants and Fillers."

2.19 RELATED MATERIALS

A. Expansion- and Isolation-Joint-Filler Strips: ASTM D1751, asphalt-saturated cellulosic fiber.
B. Texture Surface for Ramps
   1. Meet requirements of Texas Accessibility Standards.
   2. Concrete paver units shall meet all requirements of ASTM C936 and C33 and laid in a two by two-unit basket-weave pattern.
   3. Color as selected by Owner but a contrasting color with adjacent surfaces.
   4. Durabak with Safti-Traxx Detacable Warning System by Cote-L Distribution Company, or approved equal.
   5. Owner may modify texture surface requirements for ramps by Owner any time to comply with Texas Accessibility Standards. No additional compensation made for such modification.
C. Bonding Agent: Polyvinyl acetate or acrylic base.
D. Sand Cushion: Clean, manufactured, or natural sand with plasticity index of eight or less.

2.20 CONCRETE MIXES

A. Prepare design mixes, proportioned per ACI 301, for each type and strength of normal-weight concrete determined by laboratory trial mixes or field experience.
B. Use a qualified independent testing agency for preparing and reporting proposed mix designs for trial batch method. Do not use Owner's field quality-control testing agency as independent testing agency.
C. Classification. The following classes of concrete shall be used:
D. Proportion mixes to provide concrete with water-cementitious materials ratio noted.
E. Mix Design:
   1. At least 15 days before beginning any concrete pavement construction, Contractor shall submit the following to Engineer for approval:
      a. Test certificates from approved commercial testing laboratory on all proposed aggregate. Certificates shall indicate material source, gradation, and loss from five-cycle magnesium sulfate soundness test (not to exceed 18 percent) or loss from five cycles of sodium sulfate soundness test (not to exceed 12 percent).
      b. Mix design based on water-cement ratio.
      c. Results of flexural and compression tests per ASTM C39 and/or flexural tests per ASTM C78, made by approved commercial testing laboratory. Tests shall be made on six cylinders/beams at curing times appropriate to concrete class.

2. Engineer will approve/reject mix design and materials based on submittals. This approval is subject to additional testing during construction. Mix designs for various classes of concrete shall conform to:

| Class | Maximum Water/Cement Ratio | Maximum Slump Inches |
|---|---|---|
| A | .60 | 4 |
| B | .60 | 3 |
| C (slip formed) | .45 | 3 |
| COC (formed) | .45 | 6 |
| E | .45 | as specified by concrete batch plant |

3. Strength Requirements: Test at least three sets of design strength specimens with two specimens per set. Various classes of concrete shall conform to the following strengths in psi as determined by average of two test cylinders and beams:

| | | COMPRESSIVE | | FLEXURAL | |
|---|---|---|---|---|---|
| Class | 3-Day | 7-Day | 28-Day | 7-Day | 28-Day |
| A | | 2,100 | 3,000 | 425 | |
| B | 2,500 | 3,000 | - | 280 | |
| C | | 3,500 | 4,400 | 750 | 680 |
| D | | - | | - | |
| E | 2,600 (24-hr) | Unless otherwise specified | | 400 (24-hr) | |

F. Properties
1. Air Entrainment: 4 percent ASTM C260. If air content is more than 1 percentage points below/above required air, reject load of concrete.
2. Synthetic Fiber: Use manufacturer-recommended rate, but not less than 1.0 pound per cubic yard (where applicable).
3. Fly Ash: Not more than 30 percent by absolute volume of cement.

2.21 CONCRETE MIXING

A. Ready-Mixed Concrete: Comply with requirements, ASTM C94, and C1116 when synthetic fibers involved.
1. When air temperature is 85-90 degrees F, reduce mixing and delivery time from 90 to 75 minutes. When air temperature is above 90 degrees F, reduce mixing and delivery time to 60 minutes.
2. Mixing and delivery time starts at time of batching.

B. Project-Site Mixing: Comply with requirements and measure, batch, and mix concrete materials and concrete per ASTM C94. Mix concrete materials as appropriate and approved by Engineer.
1. For mixers of 1 cubic yard or smaller capacity, continue mixing at least 1.5 but not more than 5 minutes after ingredients are in mixer, before releasing any part of batch.
2. For mixers of capacity larger than 1 cubic yard, increase mixing time by 15 seconds for each additional 1 cubic yard.

3. Provide batch ticket for each batch discharged and used in Work, indicating Project identification name and number, date, mix type, mix time, quantity, and amount of water added. Batch ticket shall also indicate batching operation variances per ACI 304R.
   a. Cement and supplementary cementitious material within ±1 percent of desired weight.
   b. Aggregates measured within ±2 percent of desired weight (±1 percent when cumulative weight is taken).
   c. Allowable water adjusted for free moisture in aggregates.
   d. Admixtures discharged separately within a volumetric tolerance of ±3 percent using a method that does not allow concentrated admixtures to contact each other.
4. When using non-agitating equipment for transporting concrete, provide equipment with smooth, mortar-tight metal containers equipped with gates that prevent accidental discharge of concrete.

## PART 3 - EXECUTION

### 3.1 PREPARATION

A. Proof-roll prepared subbase surface to check for unstable areas and verify need for additional compaction. Proceed with pavement only after nonconforming conditions have been corrected and subgrade is ready to receive pavement.

B. Remove loose material from compacted subbase surface immediately before placing concrete.

### 3.2 PLACING AND REMOVING FORMS

A. Use clean and oiled forms. Secure forms on base or firm subgrade accurately graded providing stable support without deflection and movement by form-riding equipment. Pin every form at least at middle and near each end. Tightly join and key form sections together to prevent relative displacement.

B. Set side forms far enough in advance of concrete placement to permit inspection. Check conformity of grade, alignment, and stability of forms immediately before placing concrete. Make all necessary corrections. Use a straightedge or other approved method to test top of forms to ensure ride quality requirements for completed pavement is met. Stop paving operations if forms settle or deflect more than 1/8-inch under finishing operations. Reset forms to line and grade and refinish concrete surface to correct grade.

C. Avoid damage to edge of pavement when removing forms. Repair damage resulting from form removal and honeycombed areas with mortar mix within 24 hours after form removal, unless otherwise approved. Clean joint face and repair honeycombed or damaged areas within 24 hours after bulkhead for transverse construction joint removed, unless otherwise approved. When forms are removed before 72 hours after concrete placement, promptly apply membrane curing compound to edge of concrete pavement.

D. Forms not the same depth as pavement but within 2 inches of depth are permitted if subbase is trenched or full width and length of form base supported with firm material to produce required pavement thickness. Promptly repair form trench after use. Use flexible/curved wood or metal forms for curves of 100-foot radius or less.

## 3.3 STEEL REINFORCEMENT

A. Comply with CRSI "Manual of Standard Practice" for fabricating reinforcement and recommendations in CRSI "Placing Reinforcing Bars" for placing and supporting reinforcement.

B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.

C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.

D. Install welded wire fabric in lengths as long as practicable. Lap adjoining pieces at least one full mesh, and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

## 3.4 JOINTS

A. Reinforcing Steel and Joint Assemblies: Accurately place and secure in position all reinforcing steel as shown on Plans. Place dowels at mid-depth of pavement slab, parallel to surface. Place dowels for transverse contraction joints parallel to pavement edge. Tolerances for location and alignment of dowels shown on Plans. Stagger longitudinal reinforcement splices to avoid more than one-third of splices within a 2-foot longitudinal length of each lane of pavement. Use multiple-piece tie bars or drill and epoxy grout tie bars at longitudinal construction joints. Verify tie bars drilled and epoxied into concrete at longitudinal construction joints develop a pullout resistance equal to minimum three quarters of yield strength of steel after 7 days. Test fifteen bars using ASTM E488, except alternate approved equipment may be used. All fifteen tested bars must meet required pullout strength. If any test results do not meet required minimum pullout strength, perform corrective measures to provide equivalent pullout resistance. Repair damage from testing. Acceptable corrective measures include but not limited to installation of additional or longer tie bars.

B. Construct isolation, contraction, construction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated. When joining existing pavement, place transverse joints to align with previously placed joints, unless otherwise indicated.

C. Construction Joints: Set at side and end terminations of pavement and where pavement operations are stopped more than 0.5 hour, unless pavement terminates at isolation joints.
   1. Continue reinforcement across construction joints but do not continue reinforcement through sides of pavement strips, unless otherwise indicated.
   2. Provide tie bars at sides of pavement strips where indicated.
   3. Use bonding agent where fresh concrete is placed against hardened or partially-hardened concrete surfaces.

D. Isolation Joints: Form of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.
   1. Extend joint fillers full width and depth of joint.
   2. Terminate joint filler less than 1/2- or more than 1 inch below finished surface if joint sealant indicated.
   3. Place top of joint filler flush with finished concrete surface if joint sealant not indicated.

4. Furnish joint fillers in one-piece lengths. Where more than one length required, lace or clip joint-filler sections together.
5. Protect top edge of joint filler during concrete placement with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete is placed on both sides of joint.

## 3.5 CONCRETE DELIVERY

A. Clean delivery equipment as necessary to prevent accumulation of old concrete before loading fresh concrete. Use agitated delivery equipment for concrete designed with a slump more than 5 inches. Segregated concrete is subject to rejection. Place agitated concrete within 60 minutes after batching. Place non-agitated concrete within 45 minutes after batching. In hot weather or under conditions causing quick setting concrete, times may be reduced by Engineer. Time limitations may be extended if Contractor can demonstrate concrete can be properly placed, consolidated, and finished without additional water.

## 3.6 CONCRETE PLACEMENT

A. For all roadway lane pavement, construct pavement with approved slip-form paving machine designed to spread, consolidate, screed, and float-finish freshly-placed concrete in one complete pass of machine so dense and homogeneous pavement is achieved with minimal hand finishing. Paver-finisher shall be heavy duty, self-propelled machine designed specifically for paving and finishing high-quality concrete pavements. Individual placement areas of less than 500 square yards, or irregular areas where inaccessible to slip-form paving equipment, place cement concrete pavement with approved placement and finishing equipment utilizing stationary side forms. Only utilize hand screeding and float finishing on small irregular areas as allowed by Engineer.

B. Concrete Placement: Do not allow pavement edge to deviate from established paving line by more than 1/2-inch at any point. Place concrete as near as possible to final location, and minimize segregation and rehandling. Where hand spreading necessary, distribute concrete using shovels. Do not use rakes or vibrators to distribute concrete.
   1. Pavement: Consolidate all concrete by approved mechanical vibrators operated on front of paving equipment. Use immersion-type vibrators to simultaneously consolidate full width of placement when machine finishing. Keep vibrators from dislodging reinforcement. Use hand-operated vibrators to consolidate concrete in areas inaccessible to machine-mounted vibrators. Do not operate machine-mounted vibrators while paving equipment is stationary. Vibrator operations subject to review.

C. Curbs and Gutters: When automatic machine placement is used for curb and gutter placement, submit revised mix design and laboratory test results to meet/exceed requirements. Produce curbs and gutters to required cross section, lines, grades, finish, and jointing as specified for formed concrete. If results not approved, remove and replace with formed concrete.

D. When adjoining pavement lanes are placed in separate pours, do not operate equipment on concrete until pavement attains 85 percent of 28-day compressive strength.

E. Cold-Weather Placement: Comply with ACI 306.1. Protect concrete Work from physical damage or reduced strength caused by frost, freezing actions, or low temperatures.
   1. When air temperature falls to, or is expected to fall below, 40 degrees F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature not less than 50 nor more than 80 degrees F at point of placement.

2. Do not use frozen materials or materials containing ice or snow.
3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators, unless otherwise specified and approved in mix designs.

F. Hot-Weather Placement: Place concrete per recommendations in ACI 305R and as follows when hot-weather conditions exist:
1. Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 degrees F. Chilled mixing water or chopped ice may be used to control temperature, if water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor option.
2. Cover reinforcement steel with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
3. Fog-spray forms, reinforcement steel, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

## 3.7 CONCRETE FINISHING

A. Finish all concrete pavement with approved self-propelled equipment. Use power-driven spreaders, vibrators, and strike-off, screed, or approved alternate equipment. Use transverse finishing equipment to compact and strike off concrete to required section and grade without surface voids. Use float equipment for final finishing. Use concrete with a consistency to allow completion of all finishing operations without addition of water to surface. Use minimal amount of water fog mist necessary to maintain moist surface. Reduce fogging if float or straightedge operations result in excess slurry.
1. Finished Surface: As soon as concrete hardens sufficiently, test pavement surface in transverse direction with 16-foot straightedge or other specified device. Surface smoothness deviations shall not exceed 1/4-inch from 16-foot straightedge at any location, including placement along and spanning any pavement joint or edge.
   a. Mark areas in slab showing high spots more than 1/4-inch but not exceeding 1/2-inch in 16 feet and immediately grind down with approved grinding machine to elevation that falls within tolerance of 1/4-inch or less. Where departure from correct cross section exceeds 1/2-inch, remove and replace pavement at expense of Contractor when Engineer directs.
2. Maintain Surface Moisture: Prevent surface drying of pavement before application of curing system. Accomplish by fog application of evaporation retardant on pavement surface. Apply evaporation retardant at manufacturer-recommended rate. Reapply evaporation retardant as needed to maintain concrete surface in a moist condition until curing system applied. Do not use evaporation retardant as finishing aid. Failure to take acceptable precautions to prevent surface drying of pavement is cause for shut down of pavement operations.
3. Surface Texturing: Perform using combination of carpet drag and metal tining. Complete final texturing before concrete attains initial set. Draw carpet drag longitudinally along pavement surface with carpet contact surface area adjusted to provide a satisfactory coarsely textured surface. Metal-tine texture finish required unless otherwise shown on Plans. Provide metal-tine finish immediately after concrete surface set enough for consistent tining. Operate metal-tine device to obtain grooves spaced at 1 inch, approximately 3/16-inch deep, minimum 1/8-inch depth, and approximately 1/12-inch wide. Do not overlap a previously-tined area. Use manual methods for achieving similar results on ramps and other irregular sections of pavements. Repair damage to edge of slab and joints immediately after texturing. Do not tine pavement to overlay.

a. Burlap Finish: For sidewalks, drag a seamless strip of damp burlap across float-finished concrete, perpendicular to line of traffic, to provide a uniform, gritty texture.
b. Medium-to-Fine-Textured Broom Finish: For curb and gutter, draw a soft bristle broom across float-finished concrete surface perpendicular to line of traffic to provide a uniform, fine-line texture.
c. Medium-to-Coarse-Textured Broom Finish: For fillets, driveways, and alleys, provide coarse finish by striating float-finished concrete surface 1/16- to 1/8-inch deep with stiff-bristled broom, perpendicular to line of traffic. Tined Finish: For concrete pavement, perform surface texturing using a combination carpet drag and metal tining. Complete final texturing before concrete attains initial set. Draw carpet drag longitudinally along pavement surface with carpet contact surface area adjusted to provide a satisfactory coarsely-textured surface.

4. Small or Irregular Placements. Where machine placements and finishing concrete pavement not practical, use hand equipment and procedures to produce a consolidated and finished pavement section to line and grade.
5. Emergency Procedures. Use hand-operated equipment for applying texture, evaporation retardant, and cure in event of equipment breakdown.

## 3.8 CONCRETE PROTECTION AND CURING

A. Curing: Keep concrete pavement surface from drying by water fogging until curing material is applied. If forms removed during day of placement, apply curing compound to exposed areas. When placing concrete pavement, place curing compound on backside of curb. Maintain and promptly repair damage to curing materials on exposed surfaces of concrete pavement continuously at least three curing days unless specified otherwise. A curing day is a 24-hour period when temperature taken in shade away from artificial heat is above 50 degrees F at least 19 hours or surface temperature of concrete is maintained above 40 degrees F, 24 hours. Curing begins when concrete curing system is applied. Stop concrete paving if curing compound not applied promptly and maintained adequately.

B. Protect freshly-placed concrete from excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and follow recommendations in ACI 305R for hot-weather protection during curing. Submit for approval, proposed measures to protect concrete from anticipated freezing weather for first 72 hours after placement. Repair or replace all concrete damaged by freezing.

C. Evaporation Retarder: Apply to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2-pound per square foot by height before and during finishing operations. Apply per manufacturer-written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

D. Begin curing after finishing concrete but not before free water disappears from concrete surface.

E. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination:
1. Moisture Curing: Keep surfaces continuously moist no less than seven days with:
a. Water.
b. Continuous water-fog spray.
c. Absorptive cover, water saturated, kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.

2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape. Curing Compound: After texturing and immediately after free surface moisture disappears, spray concrete surface uniformly with two coats of membrane-curing compound at individual application rate not more than 180 square feet per gallon. Apply first coat within 10 minutes after completing texturing operations. Apply second coat within 30 minutes after completing texturing operations. Before and during application, maintain curing compounds in uniformly-agitated condition, free of settlement. Do not thin or dilute curing compound. Where coating shows discontinuities, other defects, or rain falls on newly-coated surface before film dries enough to resist damage, apply additional compound at same rate of coverage to correct damage. Ensure curing compound coats sides of tining grooves.
3. Curing Class E Concrete: For all Class HES concrete pavement, provide membrane curing per Section 360.4.I.1, "Membrane Curing," followed promptly by moisture curing until opening strength achieved, but not less than 24 hours.

## 3.9 SAWING JOINTS

A. Saw joints to depth shown on Plans as soon as sawing accomplished without damage to pavement regardless of time of day or weather conditions. Once sawing commences, continue until completed. All such sawing must be completed within 12 hours of placement. Use chalk line, string line, sawing template, or other approved method to provide a true joint alignment. Provide enough saws to match paving production rate to ensure sawing completion at earliest possible time to avoid uncontrolled cracking. Reduce paving production if necessary to ensure timely sawing of joints. Promptly restore membrane cure damaged within first 72 hours of curing.

## 3.10 PROTECT PAVEMENT AND OPENING TO TRAFFIC

A. Testing for early opening is Contractor responsibility regardless of job-control testing responsibilities unless otherwise shown on Plans or directed. Testing result interpretation for opening to traffic is subject to Engineer approval.
   1. Protect Pavement: Erect and maintain barricades and other standard and approved devices to exclude all vehicles and equipment from newly-placed pavement for periods specified. Before opening to traffic, protect pavement from damage due to crossings using approved methods. Where detour not readily available or economically feasible, occasional crossing of roadway with overweight equipment may be permitted for relocating equipment only, but not for hauling material. When occasional crossing of overweight equipment permitted, temporary matting or other approved methods may be required. Maintain adequate supply of sheeting or other material to cover and protect fresh concrete surface from weather damage. Apply as needed to protect pavement surface from weather.
   2. Opening Pavement to All Traffic: Pavement 7 days old may be opened to all traffic. Before opening to traffic, clean pavement, place stable material against pavement edges, seal joints, and perform all other traffic safety-related Work.

3. Opening Pavement to Construction Equipment: Unless otherwise shown on Plans, concrete pavement may be opened early to concrete paving equipment and related delivery equipment after concrete is at least 48 hours old and opening strength is demonstrated per "Early Opening to All Traffic," before curing complete. Keep delivery equipment at least 2 feet from edge of concrete pavement. Keep tracks of paving equipment at least 1 foot from pavement edge. Protect textured surfaces from paving equipment. Restore damaged membrane curing as soon as possible. Repair pavement damaged by paving or delivery equipment before opening to all traffic.
4. Early Opening to All Traffic: Concrete pavement may be opened after curing is complete and concrete attains a flexural 450-psi strength or 2,800-psi compressive strength, except that pavement using Class HES concrete may be opened after 24 hours if specified strength achieved.
    a. Strength Testing: Test concrete specimens cured under same conditions as portion of pavement involved.
5. Emergency Opening to Traffic: Under emergency conditions, when pavement is at least 72 hours old, open pavement to traffic when directed in writing. Remove all obstructing materials, place stable material against pavement edges, and perform other Work involved in providing for safety of traffic as required for emergency opening.

## 3.11 PAVEMENT THICKNESS

A. Engineer will check thickness per Tex-423-A unless other methods shown on Plans. Engineer will perform one thickness test consisting of one reading at the approximate center of each lane every 500 feet or fraction thereof. Core where directed per Tex-424-A to verify deficiencies more than 0.2 inches from plan thickness and determine limits of deficiencies of more than 0.75 inches from plan thickness. Fill core holes using a concrete mixture and method approved by Engineer.
    1. Thickness Deficiencies Greater than 0.2-inch: When any depth test measured per Tex-423-A is deficient more than 0.2-inch from plan thickness, take one 4-inch diameter core at that location to verify measurement. If core is deficient more than 0.2 but not by more than 0.75-inch from plan thickness, take two additional cores from unit (as defined herein) at intervals at least 150 feet, locations selected by Engineer, and determine thickness of unit for payment purposes by average length of three cores. In calculations of average thickness of this unit of pavement, measure in excess of specified thickness more than 0.2-inch considered specified thickness +0.2 inches.
    2. Thickness Deficiencies Greater than 0.75-inch: If core is deficient more than 0.75, take additional cores at 10-foot intervals in each direction parallel to centerline to determine boundary of deficient area. Engineer will evaluate any area of pavement found deficient in thickness by more than 0.75-inch but not more than 1 inch. As directed, remove and replace deficient areas without additional compensation or retain deficient areas without compensation. Remove and replace any area of pavement found deficient in thickness by more than 1 inch without additional compensation.
    3. Pavement Units for Payment Adjustment: Limits for applying payment adjustment for deficient pavement thickness from 0.20-inch to not more than 0.75 inch, are 500 foot of pavement in each lane. Lane width as shown on typical sections and pavement design standards.

a. For greater than 0.75-inch deficient thickness, limits for applying zero payment or requiring removal defined by coring or equivalent nondestructive means as Engineer determines. Remaining portion of unit determined less than 0.75-inch deficient subject to payment adjustment based on average core thickness at each end of 10-foot interval investigation as Engineer determines.

b. Measure shoulders for thickness unless otherwise shown on Plans. Shoulders 6 feet wide or wider considered lanes. Shoulders less than 6 feet wide considered part of adjacent lane.

c. Limits for applying payment adjustment for deficient pavement thickness for ramps, widenings, acceleration and deceleration lanes, and other miscellaneous areas are 500 feet in length. Ares less than 500 feet in length will be individually evaluated for payment adjustment based on plan area.

4. Deficient Thickness Adjustment: Where average thickness of pavement is deficient in thickness more than 0.2-inch but not more than 0.75 inches, payment made using adjustment factor as specified in Table 2 applied to bid price for deficient area for each unit as defined herein.

**Table 2 - DEFICIENT THICKNESS PRICE ADJUSTMENT FACTOR**

| Deficiency in Thickness Determined by Cores (in.) | Proportional Part of Contract Price Allowed (adjustment factor) |
|---|---|
| Not deficient | 1.00 |
| Over 0.00 through 0.20 | 1.00 |
| Over 0.20 through 0.30 | 0.80 |
| Over 0.30 through 0.40 | 0.72 |
| Over 0.40 through 0.50 | 0.68 |
| Over 50.0 through 0.75 | 0.57 |

## 3.12 PAVEMENT MARKINGS

A. Permanent pavement markings shall be reflectorized multipolymer applied per manufacturer recommendations including surface preparation.

B. Materials and installation for surface markings shall be per TxDOT Specifications.

## 3.13 FIELD QUALITY CONTROL

A. Testing Agency: Contractor shall sample materials, perform tests, and submit test reports during concrete placement. Contractor personnel performing testing must be ACI-certified or qualified by recognized equivalent written and performance testing program for tests performed. Sampling and testing for quality control include those specified herein.

B. Job-Control Testing: Unless otherwise shown on Plans, perform all fresh and hardened concrete job-control testing at specified frequency. Using a commercial laboratory is acceptable. Maintain all testing equipment calibrated per pertinent test methods. Make strength-testing equipment available to Engineer for verification testing. Provide Engineer the opportunity to witness all tests. Engineer may require retest if not given opportunity to witness. Furnish copy of all tests results to Engineer daily. Engineer will direct random job-control sampling and testing. Immediately investigate and take corrective action as approved if any Contractor test results, including tests performed for verification purposes, does not meet specification requirements. When job-control testing by Contractor is waived by Plans, Engineer will perform testing; however, this does not waive Contractor responsibility for providing materials and Work per this Item.

C. Job-Control Strength: Unless otherwise shown on Plans or permitted by Engineer, use seven-day job-control strength testing per ASTM C78. When job-control concrete strength test value is more than 10 percent below required job-control strength or three consecutive job-control strength values fall below required job-control strength, investigate strength test procedures, quality of materials, concrete production operations, and other possible problem areas to determine cause. Take necessary action to correct problem, including redesigning concrete mix if needed. Owner may suspend concrete paving if Contractor unable to identify, document, and correct cause of low-strength test values in timely manner. If any job-control strength is more than 15 percent below required job-control strength, Engineer will evaluate structural adequacy of pavements. When directed, remove and replace pavements found structurally inadequate at no additional cost.

D. Testing Services: Performed per the following requirements:

1. Sampling Fresh Concrete: Obtain representative samples of fresh concrete per ASTM C172, except modified for slump to comply with ASTM C94.
2. Flexural and Compressive-Strength Tests: ASTM C78 and C39; one set for each day's pour of each concrete class exceeding five but less than 25 cubic yards, plus one set for each additional 50 cubic yards. Test one specimen at 7 days and two specimens at 28 days. Retain one specimen in reserve for later testing if required. Provide Engineer the opportunity to witness all tests. Engineer may require a retest if not given the opportunity to witness. Furnish a copy of all test results to Engineer daily. Check first few concrete loads for slump, air, and temperature on start-up production days to check for concrete conformance and consistency. Sample and prepare strength test specimens (two specimens per test) on first day of production and each 2,000 square yards or fraction thereof of concrete pavement thereafter. Prepare at least one set of strength-test specimens for each production day. Perform slump, air, and temperature tests each time strength specimens made. Monitor concrete temperature to ensure concrete is consistently within temperature requirements. Engineer will direct random job-control sampling and testing. Immediately investigate and take corrective action as approved if any Contractor test result, including tests performed for verification purposes, does not meet specification requirements.
3. When frequency of testing provide fewer than five strength tests for given class of concrete, test from at least five randomly-selected batches or from each batch if fewer than five are used.
4. Slump: ASTM C143; one test at point of placement for each strength test, but not less than one test for each day's pour of each type of concrete. Additional tests will be required when concrete consistency changes.
5. Air Content: ASTM C231, pressure method; one test for each strength test, but not less than one test for each day's pour of each type of air-entrained concrete.

6. Concrete Temperature: ASTM C1064; one test hourly when air temperature is 40 degrees F and below, 80 degrees F and above, and one test for each set of strength specimens.
7. Test Specimens: ASTM C31; one set of two standard beams and one set of four standard cylinders for each flexural and compressive-strength test, unless otherwise indicated. Flexural strength test specimens cured under same conditions as portion of pavement involved. Molded and stored cylinders for laboratory-cured test specimens unless field-cured test specimens required.

E. Report test results in writing to Engineer and Contractor within 24 hours of testing. Reports of strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing agency, concrete type and class, location of concrete batch in pavement, design strengths at required time, concrete mix proportions and materials, breaking strengths, and type of break for both 7- and 28-day tests.

F. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Engineer but not used as sole basis for approval/rejection.

G. Additional Tests: Contractor shall additionally test concrete when test results indicate slump, air entrainment, concrete strengths, or other requirements not met, as Engineer directed. Contractor may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C42, or by other methods as directed.

H. Contractor shall pay for failing tests.

I. Questionable Concrete:
1. Concrete considered "Questionable Concrete" with any of these test evaluations:
   a. Individual test strength is below specified strength; or
   b. Samples of concrete for acceptance test cylinders or acceptance test beams not representative of concrete-in-place in pavement; or
   c. Insufficient or inadequate concrete curing; or
   d. Insufficient number of acceptance test cylinders or acceptance test beams for day's concreting made for testing.
   e. In-place core densities, on average, are less than 97 percent of original mix design density, or any one core is below 96 percent original mix design density.
2. Except where core tests impair strength of structure, core test as Owner directs made at no cost to Owner to resolve Questionable Concrete. If core tests fail to demonstrate test strength required by Contract Documents or structural analysis does not confirm adequacy of structure, Owner may, at his discretion, reject Work or require load tests or additional construction. Should structural analysis confirm adequacy of pavement, Owner may, at his discretion, accept concrete with credit for full value of concrete delivered to Site per General Conditions.
3. Contractor shall pay all costs incurred in providing the additional testing or analysis to resolve acceptability of Questionable Concrete.
4. Core Tests
   a. Take three representative cores from each member or area of concrete for each test considered questionable. Location of cores as directed by Owner to least impair strength of pavement. Replace damaged cores.
   b. Obtain and test cores per ASTM C42 except if concrete in structure will be dry under service conditions, cores shall be air dried (60-80 degrees F, and relative humidity less than 60 percent) for 7 days before test, tested dry. If concrete in structure is more than superficially wet under service conditions, cores shall be immersed in water at least 48 hours and tested wet.

3.14 REPAIRS AND PROTECTION

A. Remove and replace concrete pavement that is broken, damaged, or defective, or does not meet requirements herein.

B. Drill test cores where directed by Engineer when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with Portland cement concrete bonded to pavement with epoxy adhesive.

C. Protect concrete from damage. Exclude traffic from pavement for at least 14 days after placement. When construction traffic permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.

D. Maintain concrete pavement free of stains, discoloration, dirt, and other foreign material from construction traffic. Sweep concrete pavement no more than two days before date scheduled for opening section to public traffic.

END OF SECTION

**RESOLUTION NO. _____**

**RESOLUTION RESCINDING RESOLUTION 2023-115; REJECTING THE SOLE PROPOSAL RECEIVED; AND AUTHORIZING THE CITY MANAGER TO ADVERTISE A REQUEST FOR COMPETITIVE SEALED PROPOSALS FOR THE NORTH CITIZEN COLLECTION STATION PROJECT AND THE WEST CITIZEN COLLECTION STATION PROJECT**

**WHEREAS**, Resolution 2023-115 awarded a contract for the North Citizen Collection Station Project and the West Citizen Collection Station Project to Onyx General Contractors, LLC; and

**WHEREAS**, said contract has not been executed by the City and Onyx General Contractors, LLC

**WHEREAS,** the City Council finds it to be in the public interest to rescind Resolution 2023-115: and

**WHEREAS**, the City Council finds it to be in the public interest to reject the sole proposal received for the North Citizen Collection Station Project and the West Citizen Collection Station Project and to authorize the City Manager to advertise a request for competitive sealed proposals for said projects pursuant to the statutes of the State of Texas for accomplishing the work set forth in the plans and specifications approved in Motion 079-2023;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the recitals stated above are hereby adopted and approved.

**SECTION TWO.** That Resolution 2023-115, awarding a contract for the North Citizen Collection Station Project and the West Citizen Collection Station Project to Onyx General Contractors, LLC, is hereby rescinded.

**SECTION THREE.** That the sole proposal received for the North Citizen Collection Station Project and the West Citizen Collection Station Project is hereby rejected.

**SECTION FOUR.** That the City Manager is hereby authorized and directed to

advertise a request for competitive sealed proposals for the North Citizen Collection Station Project and the West Citizen Collection Station Project pursuant to the statutes of the State of Texas for accomplishing the work approved in Motion 079-2023 and to negotiate an agreement for said work; provided, however, that said agreement shall not become effective until approved by the City Council.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

APPROVED AS TO FORM ONLY:

_____
John Ohnemiller, City Attorney

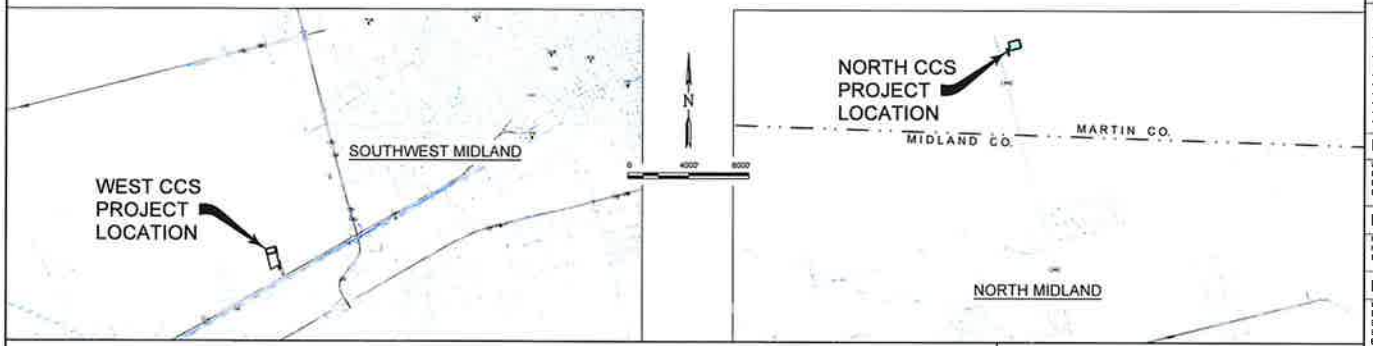
# City Of Midland

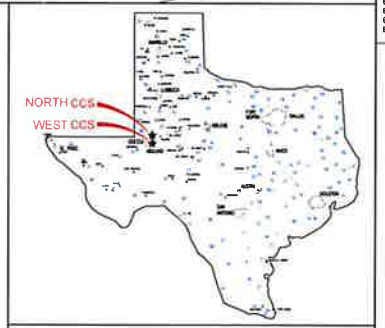
# Citizen's Collection Stations

## Construction Plans

## 6400 W. Highway 80

## Midland and Martin County, Texas




VICINITY MAP


Parkhill

4222 85th St.
Lubbock, TX 79423
806.473.2200


## Sheet Index


**General**

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| G-021 | Accessibility Standards |
| G-022 | Accessibility Standards |
| G-023 | Accessibility Standards |
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| C-106 | North CCS Site Layout Plan |
| C-107 | North CCS Site Grading Plan |
| C-108 | North CCS Concrete Pavement Jointing Plan |
| C-109 | North CCS Signage Control Plan |
| C-110 | North CCS Site Access Plan |
| C-111 | North CCS Proximity to Oil Field Equipment |
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| C-301 | Site Cross Sections |
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Parkhill

JASPENGER J. HARVEY 138737 LICENSED 10/31/2023

Parkhill.com

Citizen Collection Stations

City Of Midland

MIDLAND Feel the Energy!

CLIENT
City of Midland, Texas

300 N. Loraine
Midland, TX

PROJECT NO.
6119.21 - WEST
40615.22 - NORTH

| | | |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |
| # | DATE | DESCRIPTION |

**Cover and Sheet Index**

**G-001**

FILE NAME: A:\2021\6119.21\00_DWG\010_GEN\G-001-6119-21 - W_N.dwg LAYOUT NAME: G-001 PRINTED: Tuesday, October 31, 2023 - 10:05am USER: SHarvey

## ABBREVIATIONS

| | |
|---|---|
| A | |
| ACC | ACCESSIBLE |
| AB | ANCHOR BOLT |
| ACI | AMERICAN CONCRETE INSTITUTE |
| AD | AREA DRAIN |
| ADA | AMERICANS WITH DISABILITIES ACT |
| ADDL | ADDITIONAL |
| ADJ | ADJUSTABLE |
| ADDM | ADDENDUM |
| AFF | ABOVE FINISH FLOOR |
| AHU | AIR HANDLING UNIT |
| AIA | AMERICAN INSTITUTE OF ARCHITECTS |
| AISC | AMERICAN INSTITUTE OF STEEL CONSTRUCTION |
| ALT | ALTERNATE |
| ALUM | ALUMINUM |
| ANOD | ANODIZED |
| ANSI | AMERICAN NATIONAL STANDARDS INSTITUTE |
| APA | AMERICAN PLYWOOD ASSOCIATION |
| APPROX | APPROXIMATE |
| ARCH | ARCHITECT |
| ASCE | AMERICAN SOCIETY OF CIVIL ENGINEERS |
| ASTM | AMERICAN SOCIETY OF TESTING MATERIALS |
| AUTO | AUTOMATIC |
| AVG | AVERAGE |
| AWG | AMERICAN WIRE GAGE |
| AWS | AMERICAN WELDING SOCIETY |
| A/C | AIR CONDITIONING |
| B | |
| BAL | BALANCE |
| BC | BACK OF CURB |
| BIA | BRICK INSTITUTE OF AMERICA |
| BITUM | BITUMINOUS |
| BL | BUILDING LINE |
| BLDG | BUILDING |
| BM | BENCHMARK |
| BOCA | BUILDING OFFICIALS AND CODE ADMINISTRATORS INTERNATIONAL INC |
| BOS | BOTTOM OF STEEL |
| BOT | BOTTOM (BOTTOM FACE, LAYER, SIDE) |
| B PL | BASE PLATE |
| BRDG | BRIDGING |
| BRG | BEARING |
| BTWN | BETWEEN |
| BUR | BUILT-UP ROOFING |
| C | |
| C | AMERICAN STANDARD CHANNEL (STRUCTURAL SHAPE) |
| CU FT | CUBIC FOOT |
| CF/CI | CONTRACTOR FURNISHED/CONTRACTOR INSTALLED |
| CF/OI | CONTRACTOR FURNISHED/OWNER INSTALLED |
| CG | CORNER GUARD |
| CI | CAST IRON |
| CIR | CIRCLE |
| CIRC | CIRCULAR |
| CJ | CONTROL JOINT |
| CL | CENTER LINE |
| CLG | CEILING |
| cm | CENTIMETER |
| CMU | CONCRETE MASONRY UNIT |
| COL | COLUMN |
| CONC | CONCRETE |
| CONN | CONNECT |
| CONSTR | CONSTRUCTION |
| CONT | CONTINUE |
| CONTR | CONTRACTOR |
| CRCMF | CIRCUMFERENCE |
| CSK | COUNTER SUNK |
| CSI | CONSTRUCTION SPECIFICATIONS INSTITUTE |
| D | |
| D | DEPTH |
| DAT | DATUM |
| DBL | DOUBLE |
| DDS | DOUBLE DISPLAY STRIP |
| DEG | DEGREE |
| DEMO | DEMOLISH |
| DET | DETAIL |
| DF | DRINKING FOUNTAIN |
| DIA | DIAMETER |
| DIAG | DIAGONAL |
| DIM | DIMENSION |
| DIV | DIVIDE |
| DL | DEAD LOAD |
| DS | DOWNSPOUT |
| DWG | DRAWING |
| E | |
| E | EAST, MODULUS OF ELASTICITY |
| EA | EACH |
| EF | EACH FACE, EXTERIOR FINISH |
| EIFS | EXTERIOR INSULATION FINISH SYSTEM |
| EJ | EXPANSION JOINT |
| EL | ELEVATION |
| ELEC | ELECTRIC, ELECTRICAL |
| ELEV | ELEVATOR |
| ENGR | ENGINEER |
| EQ | EQUAL |
| EQUIP | EQUIPMENT |
| EW | EACH WAY |
| EWC | ELECTRIC WATER COOLER |
| EXIST | EXISTING |
| EXP | EXPANSION |
| EXP BT | EXPANSION BOLT |
| EXT | EXTERIOR |
| F | |
| FD | FLOOR DRAIN |
| FDTN | FOUNDATION |
| FEB | FIRE EXTINGUISHER & BRACKET |
| FEC | FIRE EXTINGUISHER & CABINET |
| FF EL | FINISH FLOOR ELEVATION |
| FIN FLR | FINISH FLOOR |
| FIN | FINISH(ED) |
| FOC | FACE OF CONCRETE, FACE OF CURB |
| FOF | FACE OF FINISH |
| FOM | FACE OF MASONRY |
| FOS | FACE OF STUD |
| FOW | FACE OF WALL |
| FRTW | FIRE RETARDANT TREATED WOOD |
| FS | FAR SIDE (FACE, LAYER) |
| FT | FOOT |
| FTG | FOOTING |
| FURG | FURRING |
| G | |
| GA | GAGE |
| GALV | GALVANIZED |
| GC | GENERAL CONTRACTOR |
| GFCI | GROUND FAULT CIRCUIT INTERRUPTER |
| GOVT | GOVERNMENT |
| GYP BD | GYPSUM BOARD |
| GYP | GYPSUM |
| H | |
| HDBD | HARDBOARD |
| HDWD | HARDWOOD |
| HDW | HARDWARE |
| HEX | HEXAGON(AL) |
| HM | HOLLOW METAL |
| HORIZ | HORIZONTAL |
| HP | HEAT PUMP |
| HS | HIGH STRENGTH |
| HT | HEIGHT |
| HVAC | HEATING VENTILATION AND AIR CONDITIONING |
| I | |
| I | MOMENT OF INERTIA |
| IBC | INTERNATIONAL BUILDING CODE |
| ID | INSIDE DIAMETER |
| IF | INSIDE FACE |
| INCL | INCLUDE(ED)(ING)(SIVE) |
| INS | INSULATION |
| INT | INTERIOR |
| INV | INVERT(ED) |
| J | |
| JAN | JANITOR |
| K | |
| NOT USED | |
| L | |
| l | LITER |
| L | ANGLE |
| LB | POUND |
| LH | LEFT HAND |
| LL | LIVE LOAD |
| LLH | LONG LEG HORIZONTAL |
| LLV | LONG LEG VERTICAL |
| LT | LIGHT |
| LT WT | LIGHT WEIGHT |
| M | |
| MAU | MAKE UP AIR UNIT(S) |
| m | METER(S) |
| MATL | MATERIAL |
| MAX | MAXIMUM |
| MB | MACHINE BOLT |
| MCJ | MASONRY CONTROL JOINT |
| MECH | MECHANIC(AL) |
| MFG | MANUFACTURING |
| MFR | MANUFACTURER |
| MIL STD | MILITARY STANDARD |
| MIN | MINIMUM |
| MISC | MISCELLANEOUS |
| mm | MILLIMETER |
| MO | MASONRY OPENING |
| MOD | MODIFY |
| MT | METAL THRESHOLD |
| MTL | METAL |
| MLWK | MILLWORK |
| N | |
| N | NORTH |
| NA | NOT APPLICABLE |
| NAT | NATURAL |
| NBS | NATIONAL BUREAU OF STANDARDS |
| NFPA | NATIONAL FIRE PROTECTION ASSOCIATION |
| NIC | NOT IN CONTRACT |
| NOM | NOMINAL |
| NRC | NOISE REDUCTION COEFFICIENT |
| NS | NEAR SIDE (FACE) |
| NTS | NOT TO SCALE |
| O | |
| OC | ON CENTER |
| OD | OUTSIDE DIAMETER |
| OF | OUTSIDE FACE |
| OFD | OVERFLOW DRAIN |
| OF/CI | OWNER FURNISHED/CONTRACTOR INSTALLED |
| OF/OI | OWNER FURNISHED/OWNER INSTALLED |
| OH DR | OVERHEAD DOOR |
| OPNG | OPENING |
| OPH | OPPOSITE HAND |
| OSHA | OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION |
| Oz | OUNCE |
| P | |
| PAR | PARALLEL |
| PCA | PORTLAND CEMENT ASSOCIATION |
| PCF | POUNDS PER CUBIC FOOT |
| PCI | PRESTRESSED CONCRETE INSTITUTE |
| PERF | PERFORATE(D) |
| PERP | PERPENDICULAR |
| PL | PROPERTY LINE |
| PLAM | PLASTIC LAMINATE |
| PLF | POUNDS PER LINEAL FOOT |
| PR | PAIR |
| PREFAB | PREFABRICATE |
| PREFIN | PREFINISH |
| PRELIM | PRELIMINARY |
| PROJ | PROJECT |
| PSF | POUNDS PER SQUARE FOOT |
| PSI | POUNDS PER SQUARE INCH |
| PBD | PARTICLE BOARD |
| PTD | PAPER TOWEL DISPENSER |
| PTDWR | PAPER TOWEL DISPENSER & WASTER RECEPTACLE |
| PVC | POLYVINYL CHLORIDE |
| PLWD | PLYWOOD |
| PVG | PAVING |
| Q | |
| QC | QUALITY CONTROL |
| QTY | QUANTITY |
| R | |
| R | RADIUS |
| RCP | REFLECTED CEILING PLAN |
| RD | ROOF DRAIN |
| REF | REFERENCE |
| REFL | REFLECT |
| REINF | REINFORCE |
| REQD | REQUIRED |
| REV | REVISION |
| RH | RIGHT HAND(ED) |
| RO | ROUGH OPENING |
| ROW | RIGHT OF WAY |
| RTU | ROOF TOP UNIT |
| S | |
| S | SOUTH |
| SBCCI | SOUTHERN BUILDING CODE CONGRESS INTERNATIONAL |
| SCHED | SCHEDULE |
| SD | SOAP DISPENSER |
| SDI | STEEL DOOR INSTITUTE |
| SECT | SECTION |
| SHT | SHEET |
| SIM | SIMILAR |
| SJI | STEEL JOIST INSTITUTE |
| SPEC | SPECIFICATION |
| SP | SOLID PLASTIC |
| SST | STAINLESS STEEL |
| STD | STANDARD |
| STL | STEEL |
| STRUCT | STRUCTURAL |
| SUSP | SUSPENDED |
| SYMM | SYMMETRICAL |
| T | |
| TRD | TREAD |
| TAN | TANGENT |
| TEMP | TEMPORARY |
| TFF | TOP OF FINISH FLOOR |
| THK | THICKNESS |
| TLT | TOILET |
| TMH | TOP OF MANHOLE |
| TOB | TOP OF BEAM |
| TOC | TOP OF CURB |
| TOF | TOP OF FOOTING |
| TOG | TOP OF GRADE |
| TOJ | TOP OF JOIST |
| TOL | TOLERANCE |
| TOM | TOP OF MASONRY |
| TOS | TOP OF STEEL |
| TOW | TOP OF WALL |
| TTD | TOILET TISSUE DISPENSER |
| TRANS | TRANSPARENT |
| TRTD | TREATED |
| TS | TUBE STEEL |
| TYP | TYPICAL |
| T&G | TONGUE AND GROOVE |
| U | |
| UBC | UNIFORM BUILDING CODE |
| UL | UNDERWRITERS LABORATORIES, INC |
| ULT | ULTIMATE |
| UNO | UNLESS NOTED OTHERWISE |
| UON | UNLESS OTHERWISE NOTED |
| V | |
| VAR | VARIES |
| VERT | VERTICAL |
| W | |
| W | WEST |
| WLD | WELDED |
| WP | WORK POINT |
| WWF | WELDED WIRE FABRIC |
| W/ | WITH |
| W/O | WITHOUT |
| W/W | WALL TO WALL |
| X | |
| XFMR | TRANSFORMER |
| Y | |
| NOT USED | |
| Z | |
| NOT USED | |

## GENERAL DRAWING LEGEND

| | |
|---|---|
| ROOM NAME 0000 | ROOM NAME<br>ROOM NUMBER |
| | FURNISHINGS/EQUIPMENT |
| # | KEY NOTE |
| # | KEY DEMOLITION NOTE |
| 1 | REVISION |
| | STRUCTURAL COLUMN LINE |
| | DATUM ELEVATION (EXISTING) |
| | DATUM ELEVATION (NEW) |
| | BREAK LINE |
| | CENTER LINE |
| | MATCHLINE/LINE |
| | NOT IN SCOPE |
| | NEW DOOR |
| | EXISTING DOOR |
| | PLAN NORTH ARROW |
| | TRUE NORTH<br>PLAN NORTH |
| XX/XXXX | ELEVATION MARK |
| XX/XXXX | SECTION MARK |
| XX/XXXX | PLAN DETAIL MARK |
| A1 TITLE 1/8" = 1'-0" | DRAWING TITLE |
| | SHEET NUMBER WHERE REFERENCED<br>REFERENCE NUMBER |

## SHEET IDENTIFICATION FORMAT

**AANNN**

- AA — DISCIPLINE DESIGNATOR
- NN — SHEET SEQUENCE NUMBER
- A — SHEET TYPE DESIGNATOR (SEE BELOW)

### SHEET TYPE DESIGNATORS

| | |
|---|---|
| 0 | GENERAL (COVER SHEETS, INDEX, SYMBOLS LEGEND, NOTES, ETC.) |
| 1 | PLANS (HORIZONTAL VIEWS) |
| 2 | ELEVATIONS (VERTICAL VIEWS) |
| 3 | SECTIONS (SECTIONAL VIEWS) |
| 4 | LARGE SCALE VIEWS (ENLARGED PLANS, ELEVATIONS, OR SECTIONS THAT ARE NOT DETAILS) |
| 5 | DETAILS |
| 6 | SCHEDULES AND DIAGRAMS |
| 7 | USER DEFINED (FOR TYPES THAT DO NOT FALL IN OTHER CATEGORIES) |
| 8 | USER DEFINED (FOR TYPES THAT DO NOT FALL IN OTHER CATEGORIES) |
| 9 | 3D REPRESENTATIONS (ISOMETRICS, PERSPECTIVES, PHOTOGRAPHS) |

Parkhill

10/31/2023

Parkhill.com

**Citizen Collection Stations**

City of Midland

MIDLAND Feel the Energy!

CLIENT
City of Midland

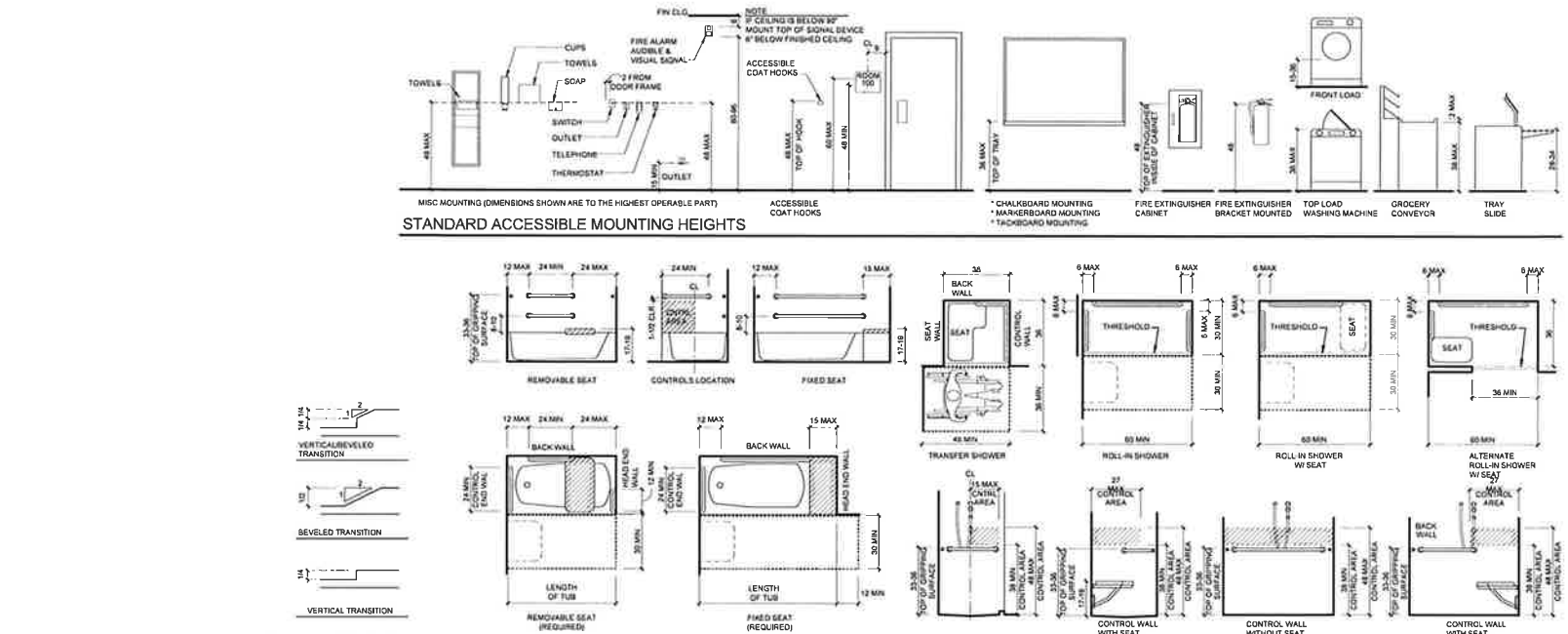
300 North Loraine
Midland, TX

PROJECT NO.
61121 - WEST
40015.22 - NORTH

| | | |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |
| # | DATE | DESCRIPTION |

**Symbols, Legends & Abbreviations**

**G-011**




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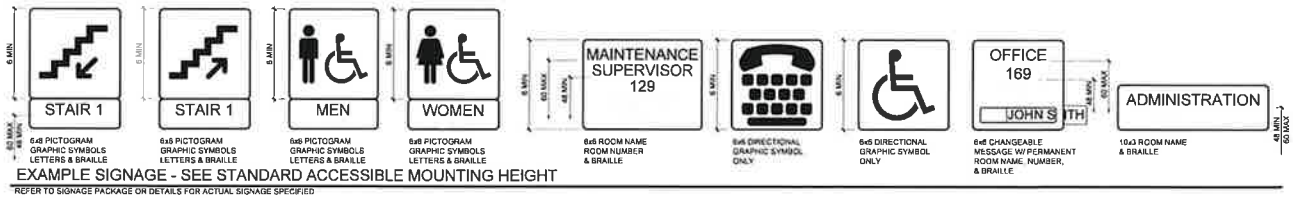
300 North Loraine
Midland, TX

PROJECT NO.
6110.21 - WEST
40015.22 - NORTH

| # | DATE | DESCRIPTION |
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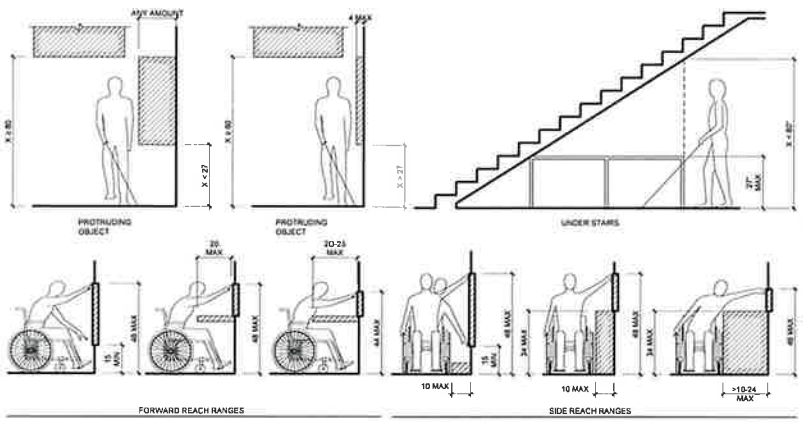
**Accessibility Standards**

**G-021**

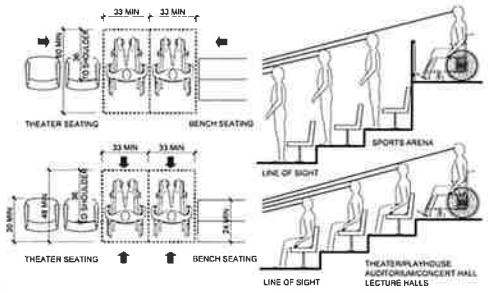



EXAMPLE SIGNAGE - SEE STANDARD ACCESSIBLE MOUNTING HEIGHT

REFER TO SIGNAGE PACKAGE OR DETAILS FOR ACTUAL SIGNAGE SPECIFIED

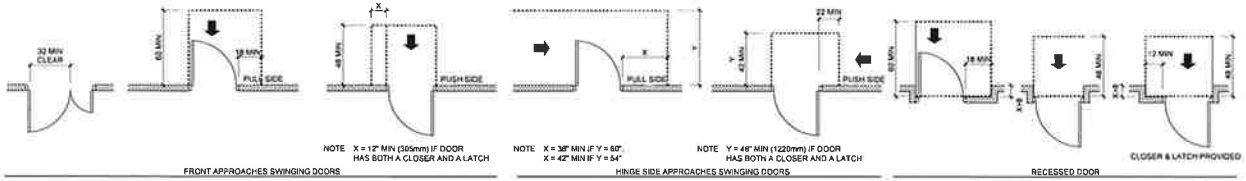



PROTRUDING OBJECT PROTECTION/REACH RANGES




ASSEMBLY SEATING

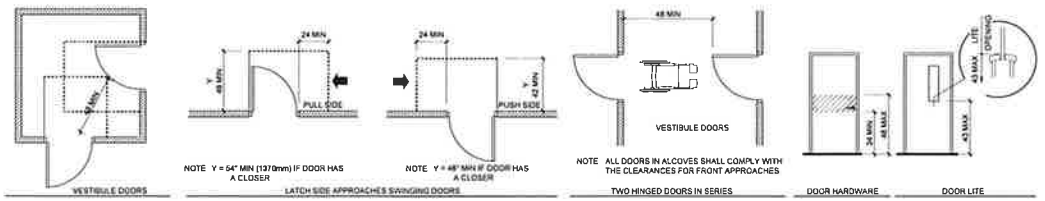
| CHILDREN'S MOUNTING HEIGHTS & REACH RANGES | AGES 3 AND 4 | AGES 5 THROUGH 8 | AGES 8 THROUGH 12 |
|---|---|---|---|
| REACH RANGES | | | |
| HIGH | 36 | 40 | 44 |
| LOW | 20 | 18 | 16 |
| RAMPS AND STAIRS | | | |
| TOP OF HANDRAIL GRIPPING SURFACE | 28 MAX | 28 MAX | 28 MAX |
| WATER CLOSETS | | | |
| WATER CLOSET CENTERLINE | 12 | 12-15 | 15-18 |
| GRAB BARS | 18-20 | 20-21 | 25-27 |
| DISPENSER HEIGHT | 14 | 14-17 | 17-19 |
| FIXED OR BUILT-IN SEATING AND TABLES READING AND STUDY AREAS, AND WORK STATIONS | AGES 5 & YOUNGER | AGES 6-12 | |
| HEIGHT OF TABLES OR COUNTERS | PARALLEL APPROACH ALLOWED | 26-30 MAX 24 MIN | |
| KNEE CLEARANCE | | | |




NOTE X = 12" MIN (305mm) IF DOOR HAS BOTH A CLOSER AND A LATCH

NOTE X = 36" MIN IF Y = 60", X = 42" MIN IF Y = 54"

NOTE Y = 48" MIN (1220mm) IF DOOR HAS BOTH A CLOSER AND A LATCH




NOTE Y = 54" MIN (1370mm) IF DOOR HAS A CLOSER

NOTE Y = 48" MIN IF DOOR HAS A CLOSER

NOTE ALL DOORS IN ALCOVES SHALL COMPLY WITH THE CLEARANCES FOR FRONT APPROACHES

TYPICAL DOOR CLEARANCES

## GENERAL NOTES

- ACCESSIBILITY GUIDELINE SHEETS ARE BASED ON THE 2012 TEXAS ACCESSIBILITY STANDARDS (TAS)
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- GRAPHICS SHOWN ARE FOR ADULTS

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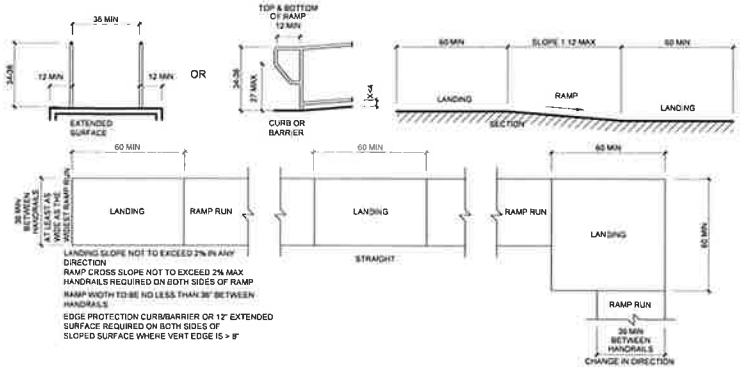
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Midland, TX

PROJECT NO.
6119.21 - WEST
40013.22 - NORTH

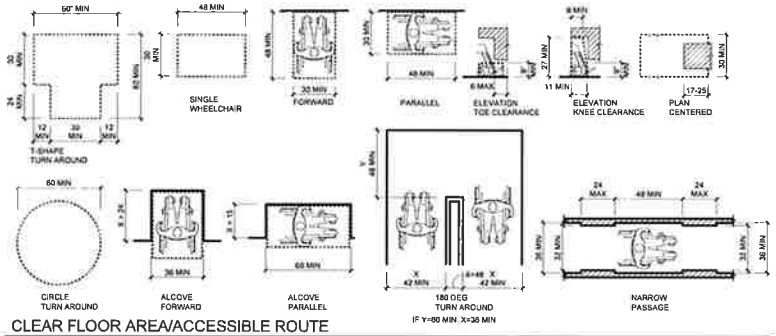
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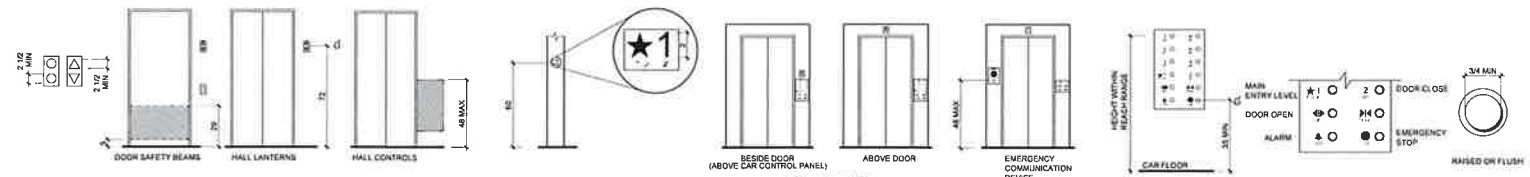
**G-022**



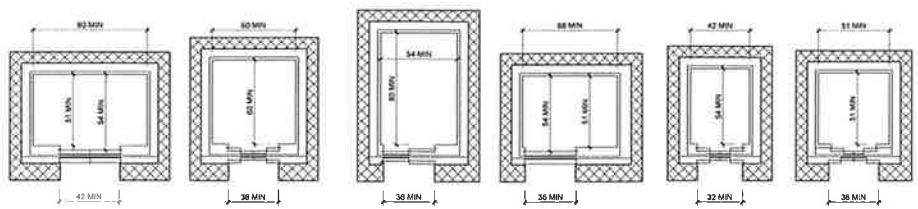

ACCESSIBLE RAMP




CLEAR FLOOR AREA/ACCESSIBLE ROUTE




ELEVATORS




ELEVATORS | LULA | LIFTS

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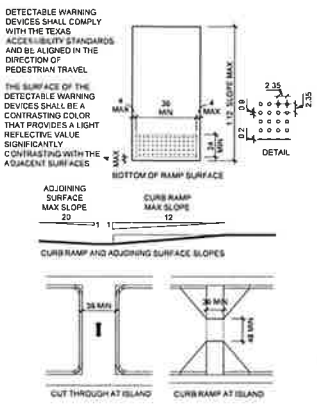
PROJECT NO.
6119 21 - WEST
40015 22 - NORTH

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|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

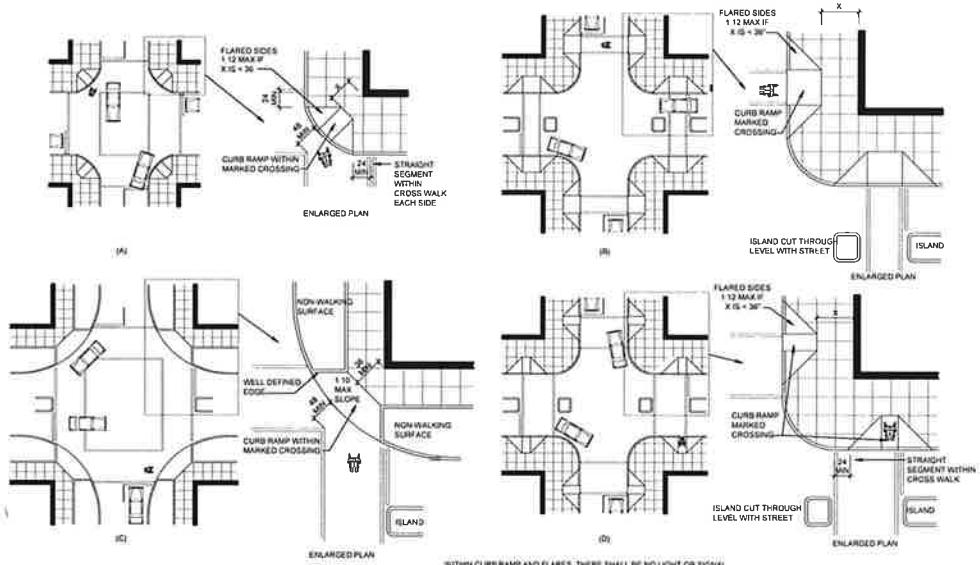
**Accessibility Standards**

**G-023**

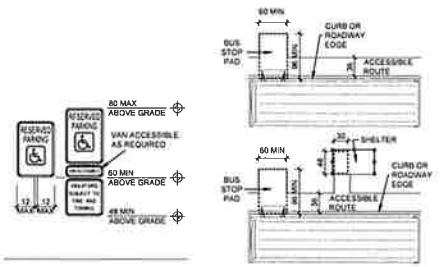
10/31/2023 2:13:16 PM




CURB RAMPS



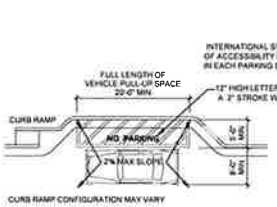

CURB RAMPS AT MARKED CROSSINGS




ACCESSIBLE PARKING SIGNAGE



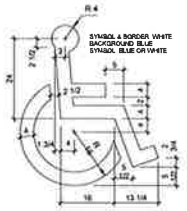

BUS STOPS




PASSENGER LOADING ZONE



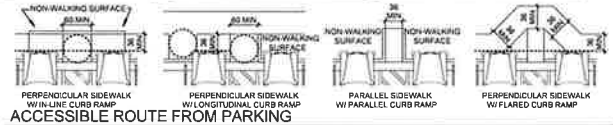

PARKING SPACES



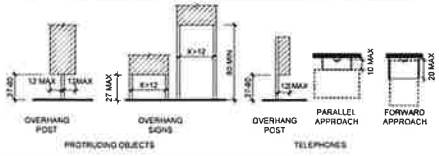

ACCESSIBILITY SYMBOL



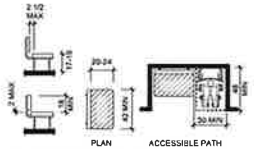

ACCESSIBLE ROUTES




ACCESSIBLE ROUTE FROM PARKING




PROTRUDING OBJECTS/TELEPHONES




ACCESSIBLE SEATING

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PROJECT NO.
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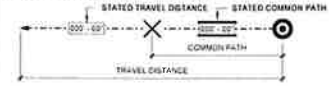
**Accessibility Standards**

**G-024**

## LEGEND

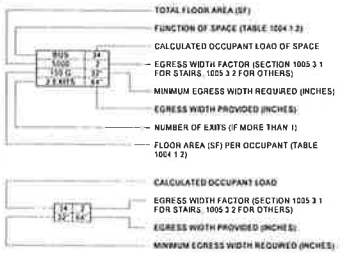
EXIT — EGRESS EXIT REQUIRED

EGRESS PATH, TRAVEL DISTANCE AND COMMON PATH




### ABBREVIATIONS

| | |
|---|---|
| 200 | DISTANCE BETWEEN EXITS |
| EW=36" | EXIT WIDTH PROVIDED AT SPECIFIC EXIT |
| GSF | GROSS SQUARE FOOT |
| NSF | NET SQUARE FOOT |
| FEC | FIRE EXTINGUISHER CABINET |
| TD | TRAVEL DISTANCE |
| CPOT | COMMON PATH OF TRAVEL |
| (M)DBE | (MINIMUM) DISTANCE BETWEEN EXITS |
| OL | OCCUPANT LOAD |




## OCCUPANT LOAD TABLE (2018, 2021)

| FUNCTION OF SPACE (1004.5) | OCC PER SF |
|---|---|
| ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM | 300 GROSS |
| AGRICULTURE BUILDING | 300 GROSS |
| AIRCRAFT HANGAR | 500 GROSS |
| AIRPORT TERMINAL | |
| BAGGAGE CLAIM | 20 GROSS |
| BAGGAGE HANDLING | 300 GROSS |
| CONCOURSE | 100 GROSS |
| WAITING AREAS | 15 GROSS |
| ASSEMBLY | |
| GAMING FLOORS (KENO, SLOTS, ETC.) | 11 GROSS |
| EXHIBIT GALLERY AND MUSEUM | 30 NET |
| ASSEMBLY W/ FIXED SEATS | SEE SECTION 1004.8 |
| ASSEMBLY W/O FIXED SEATS | |
| CONCENTRATED (CHAIRS ONLY-NOT FIXED) | 7 NET |
| STANDING SPACE | 5 NET |
| UNCONCENTRATED (TABLES AND CHAIRS) | 15 NET |
| BOWLING CENTERS, ALLOW 5 PERSONS FOR EACH LANE INCLUDING 15 FEET OF RUNWAY, AND FOR ADDITIONAL AREAS | 7 NET |
| BUSINESS AREAS | 150 GROSS |
| CONCENTRATED BUSINESS USE AREA | SEE SECTION 1004.9 |
| COURT ROOMS-OTHER THAN FIXED SEATING AREAS | 40 NET |
| DAY CARE | 35 NET |
| DORMITORIES | 50 GROSS |
| EDUCATIONAL | |
| CLASSROOM AREA | 20 NET |
| SHOPS AND OTHER VOCATIONAL ROOM AREAS | 50 NET |
| EXERCISE ROOMS | 50 GROSS |
| H-5 FABRICATION AND MANUFACTURING AREAS | 200 GROSS |
| INDUSTRIAL | 100 GROSS |
| INSTITUTIONAL AREAS | |
| INPATIENT TREATMENT AREAS | 240 GROSS |
| OUTPATIENT AREAS | 100 GROSS |
| SLEEPING AREAS | 120 GROSS |
| KITCHENS, COMMERCIAL | 200 GROSS |
| LIBRARY | |
| READING ROOM | 50 NET |
| STACK AREA | 100 GROSS |
| LOCKER ROOMS | 50 GROSS |
| MALL BUILDINGS-COVERED AND OPEN | SEE SECTION 402.8.2 |
| MERCANTILE | |
| AREAS ON OTHER FLOORS | 60 GROSS |
| STORAGE, STOCK, SHIPPING AREAS | 300 GROSS |
| PARKING GARAGES | 200 GROSS |
| RESIDENTIAL | 200 GROSS |
| SKATING RINKS, SWIMMING POOLS | |
| RINK AND POOL | 50 GROSS |
| DECKS | 15 GROSS |
| STAGES AND PLATFORMS | 15 NET |
| WAREHOUSES | 500 GROSS |

## GENERAL CONSTRUCTION INFORMATION

APPLICABLE CODES:

| | |
|---|---|
| BUILDING | IBC 2018 |
| PLUMBING | IPC 2018 |
| MECHANICAL | IMC 2018 |
| ELECTRICAL | NEC 2017 |
| FIRE | IFC 2015 |
| ENERGY | IECC 2021 |
| ACCESSIBILITY | 2010 TAS |
| OTHER | - |

## PLUMBING FIXTURE RQMTS - IPC

IPC 2018 - TABLE 403.1

BUSINESS OCCUPATION LOAD = 7
STORAGE OCCUPATION LOAD = 8

| | WATER CLOSETS | | LAVATORIES | | DRINK FOUNT. | SERVICE SINK |
|---|---|---|---|---|---|---|
| | MALE | FEMALE | MALE | FEMALE | | |
| BUS | 0.16 | 0.16 | 0.1 | 0.1 | 0.07 | 1 |
| S&MAN | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 1 |
| TOTAL REQ'D | 1 | 1 | 1 | 1 | | 1 |
| PROVID. | 1 | 1 | 1 | 1 | | 1 |

## GENERAL NOTES

1. UL ASSEMBLIES INDICATED ESTABLISH BASIS PERFORMANCE. OTHER ASSEMBLIES MAY BE CONSIDERED AT DISCRETION OF ARCHITECT IF EQUIVALENT PERFORMANCE IS PROVIDED. SUBSTITUTION PROPOSALS SHALL INCLUDE CHANGES REQUIRED TO COMPONENTS OF ASSEMBLY.
2. RATED ASSEMBLIES TO BE IDENTIFIED ABOVE CEILING AS REQUIRED BY LOCAL CODE AND THE AHJ.
3. FIRE EXTINGUISHERS, (IFC SECTION 906 AND NFPA 10, CHAPTER 6 AND TABLE 6.2.1.1)
   A. BUSINESS OCCUPANCY
      a. CLASS A - LIGHT HAZARD OCCUPANCY
      b. MAXIMUM FLOOR AREA FOR UNIT = 11,250 SF
      c. MAXIMUM TRAVEL DISTANCE TO EXTINGUISHER = 75 FT

## BUILDING ENVELOPE REQUIREMENTS

CLIMATE ZONE: 3B

BUILDING ENVELOPE OPAQUE ELEMENTS

| | |
|---|---|
| ROOFS | |
| INSULATION ENTIRELY ABOVE ROOF DECK | R-25ci |
| METAL BUILDINGS | R-19 + R-11 LS |
| ATTIC AND OTHER | R-38 |
| WALLS, ABOVE GRADE | |
| MASS | R-7.6ci |
| METAL BUILDINGS | R-13 + R-6.5ci |
| METAL FRAMED | R-13 + R-7.5ci |
| WOOD FRAMED AND OTHER | R-13 + R-3.8ci OR R-20 |
| WALLS, BELOW GRADE | |
| BELOW-GRADE WALL | NR |
| FLOORS | |
| MASS | R-10ci |
| JOISTS/FRAMING | R-30 |
| SLAB-ON-GRADE FLOORS | |
| UNHEATED SLABS | NR |
| HEATED SLABS | R-10 FOR 24" BELOW |
| OPAQUE DOORS | |
| NONSWINGING | R-4.75 |

NOTES
1. ci REPRESENTS CONTINUOUS INSULATION
2. OPAQUE DOOR REPRESENTS DOORS HAVING LESS THAN 50% GLASS AREA

BUILDING ENVELOPE FENESTRATION

| VERTICAL FENESTRATION | | |
|---|---|---|
| U-FACTOR | | |
| FIXED FENESTRATION | U-0.46 | |
| OPERABLE FENESTRATION | U-0.60 | |
| ENTRANCE DOORS | U-0.77 | |
| SHGC | | |
| ORIENTATION | SEW | N |
| PF < 0.2 | 0.25 | 0.33 |
| 0.2 ≤ PF < 0.5 | 0.30 | 0.37 |
| PF ≥ 0.5 | 0.40 | 0.40 |
| SKYLIGHTS | | |
| U-FACTOR | U-0.55 | |
| SHGC | 0.35 | |

## FIRE PROTECTION RQMTS (TAB 601)

CONSTRUCTION TYPE: TYPE II-B
AUTOMATIC FIRE SPRINKLER SYSTEM: NO

| BUILDING ELEMENT PROTECTION | |
|---|---|
| PRIMARY STRUCTURAL FRAME (SEE SECTION 202) | 0 HOUR(S) |
| BEARING WALLS | |
| EXTERIOR | 0 HOUR(S) |
| INTERIOR | 0 HOUR(S) |
| NONBEARING WALLS AND PARTITIONS (TABLE 602) | |
| EXTERIOR | 0 HOUR(S) |
| NONBEARING WALLS AND PARTITIONS | |
| INTERIOR | 0 HOUR(S) |
| FLOOR CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS (SEE SECTION 202) | 0 HOUR(S) |
| ROOF CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS (SEE SECTION 202) | 0 HOUR(S) |

| PERIMETER CONTAINMENT | |
|---|---|
| METAL STUD FLY BY | SYSTEM |
| METAL STUD BEARING | SYSTEM |
| CURTAINWALL | SYSTEM |
| STOREFRONT | SYSTEM |

## EGRESS

| | |
|---|---|
| TOTAL OCCUPANT LOAD FOR THE BUILDING | 15 |
| TOTAL OCCUPANT LOAD EGRESS WILL ACCOMMODATE | 920 |
| REQUIRED CAPACITY BASED ON OCCUPANT LOAD (IN) | |
| 1% x 0.2 (SECTION 1005.3.1 STAIRWAYS) | 4.5 INCHES |
| 1% x 0.2 (SECTION 1005.3.2 OTHER EGRESS COMPONENTS) | 3 INCHES |
| PROVIDED CAPACITY (INCHES) | |
| STAIRWAYS | 36 INCHES |
| OTHER EGRESS COMPONENTS | 184 INCHES |

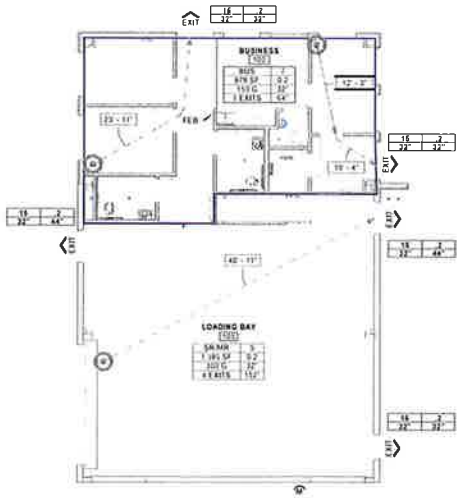
| | |
|---|---|
| MAXIMUM ALLOWABLE TRAVEL DISTANCE | 125 FEET |
| LONGEST TRAVEL DISTANCE | 55 FEET |

| | |
|---|---|
| MAXIMUM DEAD END LIMIT | 20 FEET |
| MAXIMUM DEAD END LIMIT PROVIDED | 0 FEET |

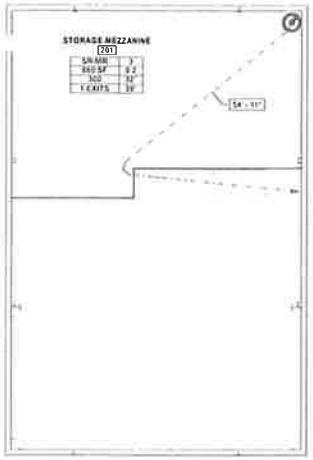
| | |
|---|---|
| COMMON PATH OF EGRESS TRAVEL | 100 FEET |
| COMMON PATH OF EGRESS TRAVEL PROVIDED | 12.25 FEET |

| | |
|---|---|
| TWO EXITS REQUIRED WHERE OCCUPANT LOAD EXCEEDS | 50 |

| MINIMUM NUMBER OF EXITS FOR OCCUPANT LOAD | |
|---|---|
| 1-500 | 2 EXITS |
| 501-1000 | 3 EXITS |
| MORE THAN 1000 | 4 EXITS |




A1 FIRST FLOOR - LIFE SAFETY PLAN
1/8" = 1'-0"




A2 MEZZANINE FLOOR - LIFE SAFETY PLAN
1/8" = 1'-0"

Parkhill

10/31/2023

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Citizen Collection Stations
City of Midland

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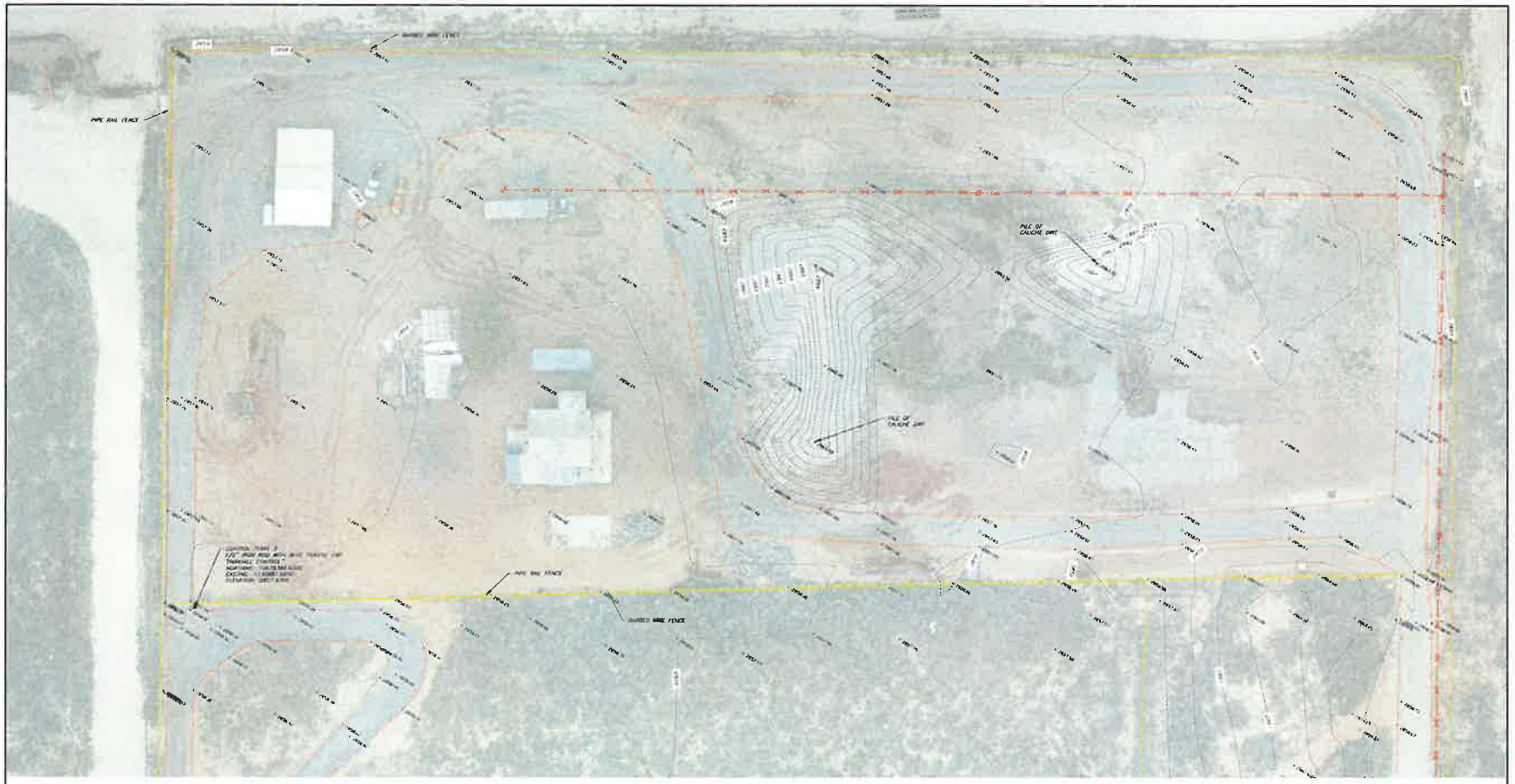
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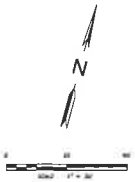
PROJECT NO.
6119.21 - WEST
40615.33 - MIDKITH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

Code Information

G-101




SURVEY CONTROL POINTS

| POINT | NORTHING | EASTING | ELEVATION | DESCRIPTION |
|---|---|---|---|---|
| CONTROL POINT 1 | 10,676,184.65 | 1,731,847.89 | 2,837.91' | CUT 1/2" IRON PIPE CONTROL |
| 2 | 10,680,189.24 | 1,731,911.19 | 2,838.26' | CUT 1/2" IRON PIPE CONTROL |

TEXAS COORDINATE SYSTEM OF 1983 (NAD83/93) TEXAS CENTRAL ZONE (4203) ELEVATIONS ARE BASED ON NAVD 88

LEGEND

- TRANSFORMER POLE
- POWER POLE
- GUY POLE
- DOWN GUY
- CONTROL POINT
- GAS LINE
- POWER OVERHEAD
- ASPHALT PAVEMENT
- BARBED WIRE FENCE
- PIPE RAIL FENCE
- CONTOUR LINE



VICINITY MAP
(NOT TO SCALE)

SURVEYOR'S REPORT

1. BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE (4203), NAD 83(93).
   HORIZONTAL DATUM: NAD83 (2011)
   COMBINED SCALE FACTOR: 0.99988106
2. DISTANCES REPORTED HEREON ARE AT GRID.
3. AREAS REPORTED HEREON ARE BASED ON CALCULATIONS MADE FROM GRID DISTANCES.
4. THIS SURVEY IS SUBJECT TO ANY FACTS WHICH MAY BE ASCERTAINED BY A FULL AND ACCURATE TITLE SEARCH. THIS MAY INCLUDE EASEMENTS, RESTRICTIONS, AND/OR COVENANTS THAT MAY BE FOUND IN PUBLIC RECORDS OF THE COUNTY.
5. LOCATION OF UNDERGROUND UTILITIES ARE DETERMINED FROM SURFACE EVIDENCE, AND/OR REPORTED LOCATION AND MAY OR MAY NOT CORRECTLY INDICATE THE ACTUAL LOCATION OF EXISTENCE OF THOSE UTILITIES. UTILITY REQUESTS WERE NOT MADE TO TEXAS 811. ADDITIONAL UTILITIES MAY EXIST WHICH THIS SURVEY DOES NOT INDICATE.
6. THIS PLAT IS VALID UNLESS IT BEARS THE SURVEYOR'S ORIGINAL SEAL AND SIGNATURE.
7. THIS IS NOT A BOUNDARY SURVEY.

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE PLAT AS SHOWN HEREON WAS PREPARED FROM AN ON-THE-GROUND SURVEY PERFORMED BY ME OR UNDER MY SUPERVISION AND CONFORMS TO THE CURRENT TSPS STANDARDS. IT IS MADE ON THE BASIS OF THE LOCATION OF ANY AND ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY.

Frankl Leamon — MAR 13, 2023

FRANKLIN LEAMON
R.P.L.S. 6889

DATE

FILE NAME: W:\Section\Public Works - Surveying\Library\MIDLAND COUNTY\Midland Citizen Collection Center Wm1607-CAO\FALTOPO SURVEY 6-13-23\DS_6119[1]_MID_WEST_CCS.dwg LAYOUT NAME V-001 PRINTED Tuesday, June 13, 2023 - 11:09am USER: lleamons

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Citizen Collection Stations

City Of Midland

MIDLAND
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CLIENT
City of Midland, Texas

300 N. Loraine
Midland, TX

PROJECT NO.
6119.21 - WEST
6015.22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

Topographic Survey

V-001




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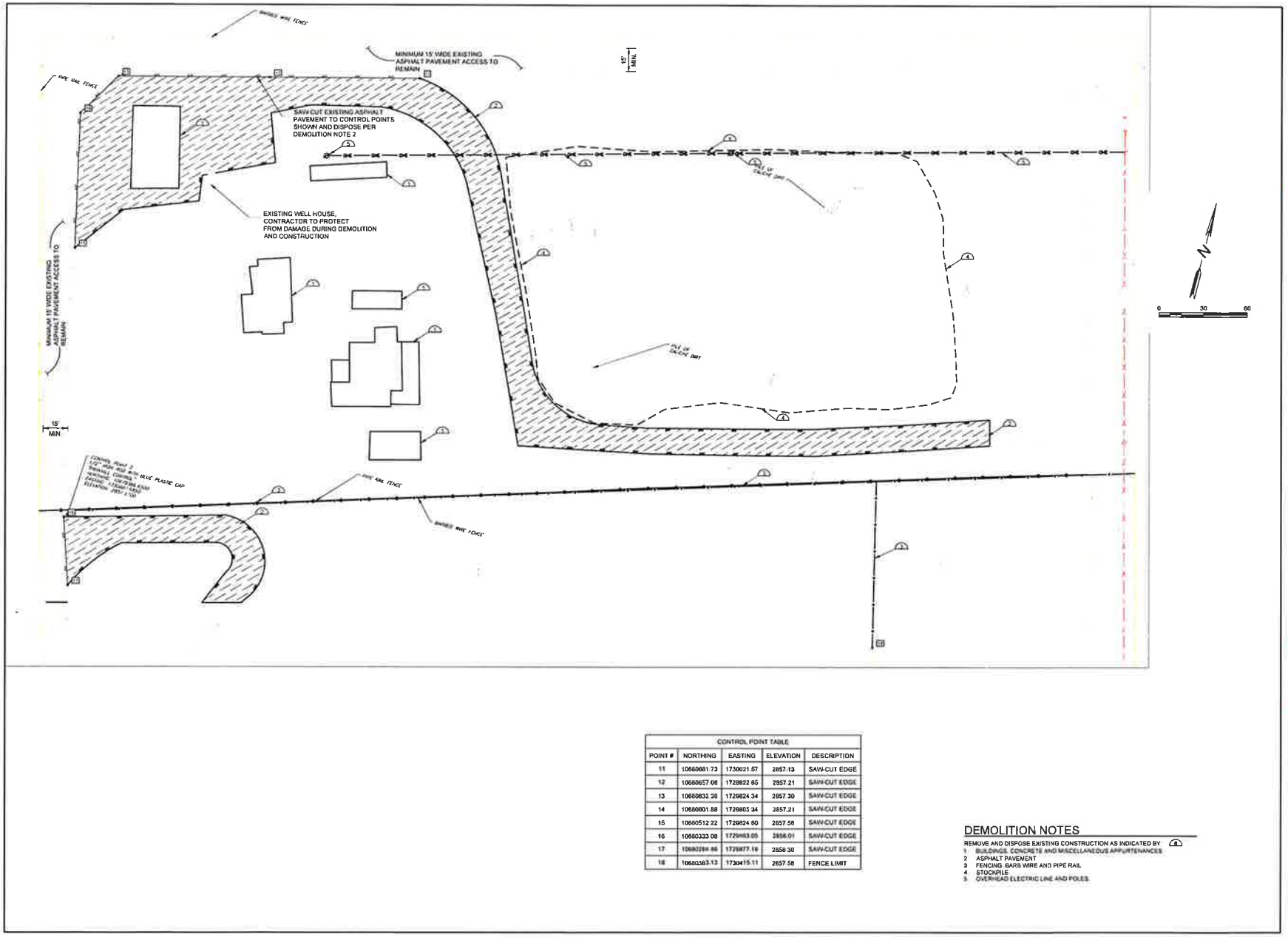
300 N. Loraine
Midland, TX

PROJECT NO.
61192I - WEST
48015 23 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

Topographic Survey

V-002




| CONTROL POINT TABLE | | | | |
|---|---|---|---|---|
| POINT # | NORTHING | EASTING | ELEVATION | DESCRIPTION |
| 11 | 10660881.73 | 1730021.57 | 2857.13 | SAW-CUT EDGE |
| 12 | 10660657.08 | 1729822.85 | 2857.21 | SAW-CUT EDGE |
| 13 | 10660832.38 | 1729824.34 | 2857.30 | SAW-CUT EDGE |
| 14 | 10660001.88 | 1729805.34 | 2857.21 | SAW-CUT EDGE |
| 15 | 10660512.22 | 1729824.60 | 2857.58 | SAW-CUT EDGE |
| 16 | 10660333.08 | 1729863.05 | 2858.01 | SAW-CUT EDGE |
| 17 | 10660284.86 | 1729877.19 | 2858.30 | SAW-CUT EDGE |
| 18 | 10660383.13 | 1730415.11 | 2857.58 | FENCE LIMIT |

## DEMOLITION NOTES

REMOVE AND DISPOSE EXISTING CONSTRUCTION AS INDICATED BY (#)

1. BUILDINGS, CONCRETE AND MISCELLANEOUS APPURTENANCES
2. ASPHALT PAVEMENT
3. FENCING, BARB WIRE AND PIPE RAIL
4. STOCKPILE
5. OVERHEAD ELECTRIC LINE AND POLES

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SPENCER J. HARVEY 138737 LICENSED 10/31/2023

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City Of Midland

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300 N. Loraine
Midland, TX

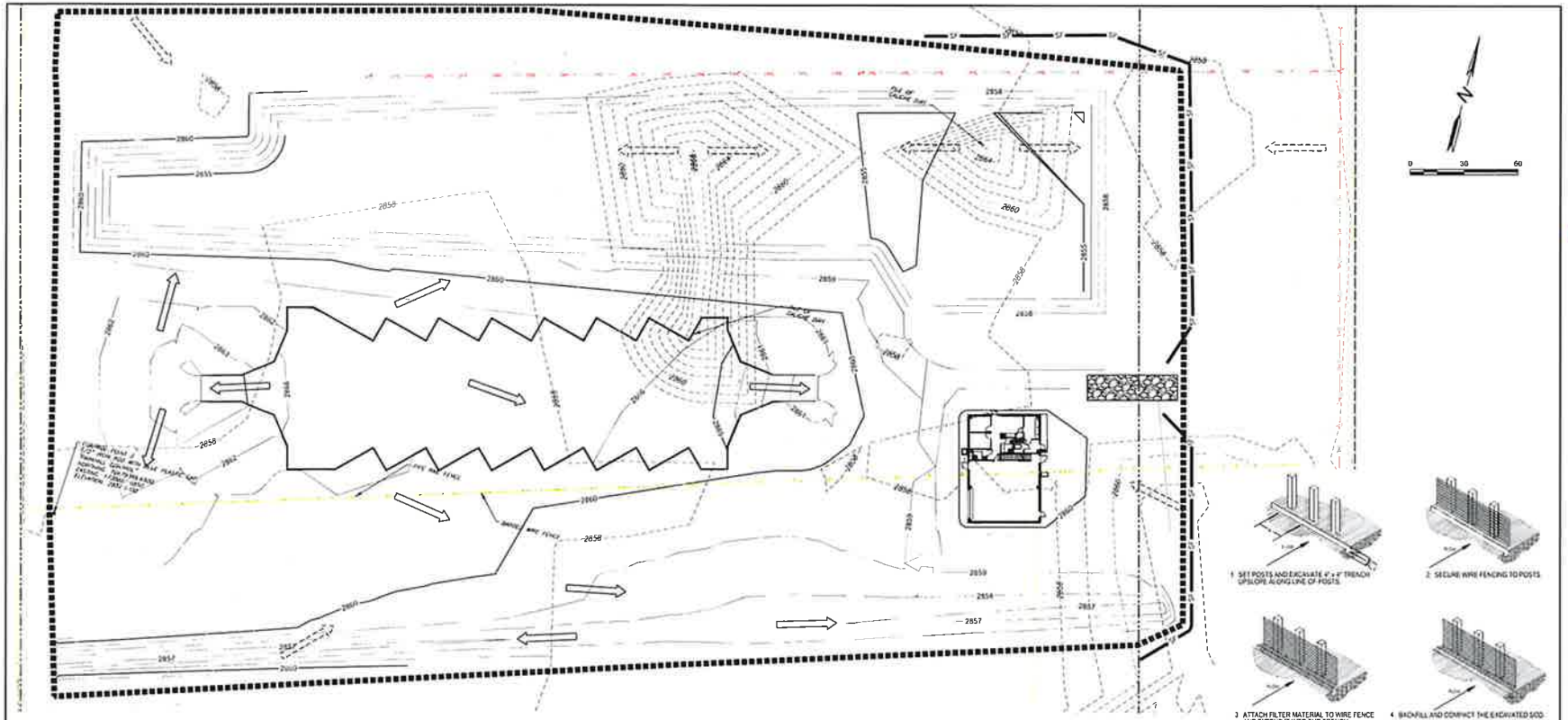
PROJECT NO.
61119.21 - WEST
40016.22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

West CCS Demolition Plan

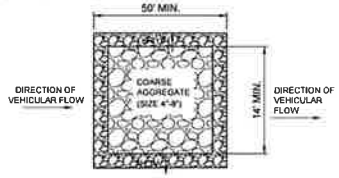
C-001

FILE NAME: A:\2021\61192100_DSGN\01_DWG\050_CIVIL\C-001-61192-21.dwg LAYOUT NAME: C-001 PRINTED: Tuesday, October 31, 2023 - 10:05am USER: SHarvey




## EROSION CONTROL NOTES

1. SILT FENCING OR TEMPORARY BERMS SHALL BE INSTALLED PRIOR TO START OF CONSTRUCTION.
2. TEMPORARY SWALES AND DESILTING BASINS WILL BE PLACED WHERE NECESSARY IN ORDER TO CONVEY STORMWATER RUN-OFF.
3. A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING THAT ALL EROSION CONTROL METHODS ARE INSPECTED ON A WEEKLY BASIS OR AFTER EVERY ERODIBLE RAINFALL (1/2" OR MORE). ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL SHALL BE MADE AT THAT TIME.
5. THIS DRAWING IS PART OF A TPDES CONSTRUCTION POLLUTION PREVENTION PLAN. PLEASE REFER TO TEXT PORTION OF THIS PLAN FOR ADDITIONAL AND REQUIREMENTS.




A1 STABILIZED CONSTRUCTION ENTRANCE (TxDOT TYPE 1)
NO SCALE

## CWA MAINTENANCE NOTES

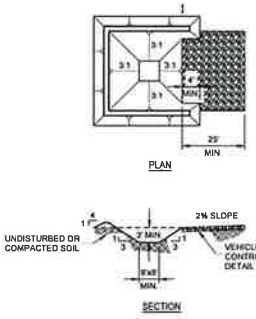
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE, CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE OF PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

## GENERAL NOTES

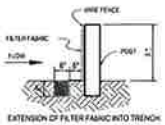
1. THE CONSTRUCTION ENTRANCE FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
2. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.
3. CONTRACTOR TO COORDINATE WITH ENGINEER PRIOR TO CONSTRUCTION.
4. CONTRACTOR TO COORDINATE WITH OWNER THE LOCATION OF THE STAGING AREA AND CONCRETE WASHOUT AREA.

## STABILIZED CONSTRUCTION NOTES

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE APPROACH SHOULD BE NO STEEPER THAN 6:1.
3. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
4. USE 4"-8" STONE OR EQUIVALENT AT A MINIMUM DEPTH OF 12" FOR STABILIZED CONSTRUCTION ENTRANCE.
5. FILTER FABRIC SHOULD BE PLACED UNDERNEATH STONE OF CONSTRUCTION ENTRANCE TO REDUCE THE AMOUNT OF RUTTING AND TO PREVENT STONE FROM BEING EMBEDDED INTO THE SOIL.




B3 CWA CONCRETE WASHOUT AREA
NO SCALE




B4 FILTER FABRIC BARRIER (SILT FENCE)
NO SCALE

## NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24' AT THE TOP AND MIDSECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED 6" AT THE POSTS AND FOLDED.
4. FENCE POSTS SHALL BE CAPABLE OF SUPPORTING FENCE AND MAY BE METAL OR WOOD.

## EROSION CONTROL LEGEND

| | |
|---|---|
| 1.50% | PROPOSED DRAINAGE PATH WITH PERCENT SLOPE |
| | STABILIZED CONSTRUCTION ENTRANCE. SEE DETAIL THIS SHEET |
| | EXISTING CONTOURS (1' INTERVAL) |
| | PROPOSED CONTOURS (1' INTERVAL) |
| | LIMITS OF DISTURBANCE (AREA AFFECTECTED BY PROJECT APPROX. 5.16 ACRES) |
| | FLOW DIRECTION (PROPOSED) |
| | FLOW DIRECTION (EXISTING) |
| SF | SILT FENCE. SEE DETAIL THIS SHEET |

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300 N. Loraine
Midland, TX

PROJECT NO.
5172.21 - WEST
49013.22 - NORTH

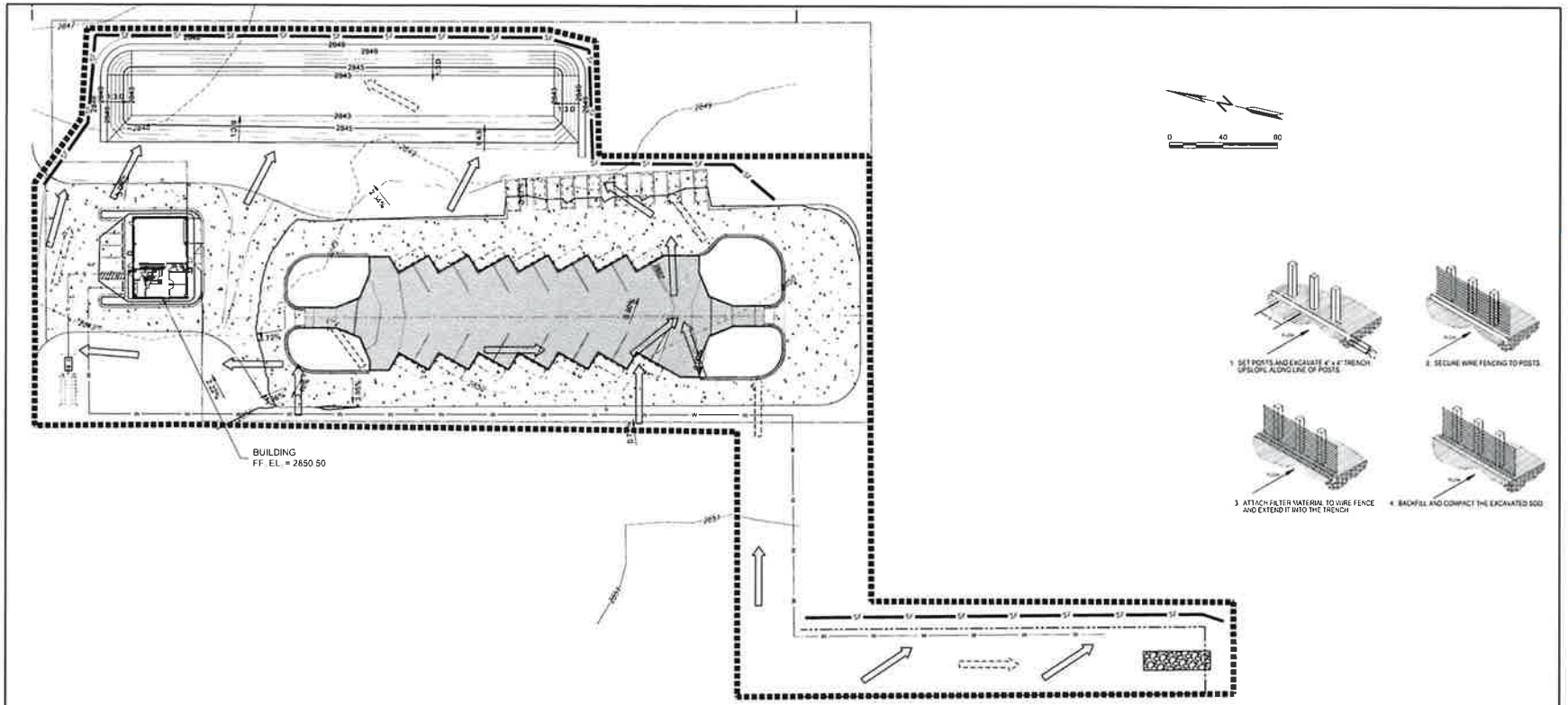
- 10/31/2023 Issue for Proposal

# DATE DESCRIPTION

**West CCS**
**Erosion Control Plan**

**C-002**

FILE NAME: A:\2021\5172.21\03_DESIGN\01_CIVIL\C-002-EC172.21.dwg LAYOUT NAME: C-002 PRINTED: Tuesday, October 31, 2023 - 10:05am USER: SHarvey

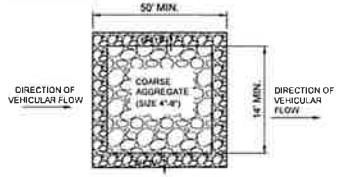


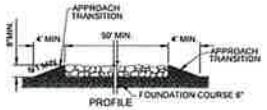




## EROSION CONTROL NOTES

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A1 STABILIZED CONSTRUCTION ENTRANCE (TxDOT TYPE 1)
NO SCALE

## CWA MAINTENANCE NOTES

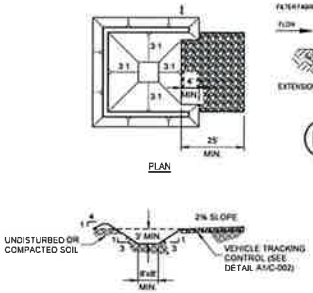
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5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE OF PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

## GENERAL NOTES

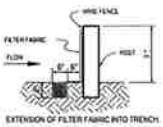
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2. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.
3. CONTRACTOR TO COORDINATE WITH ENGINEER PRIOR TO CONSTRUCTION
4. CONTRACTOR TO COORDINATE WITH OWNER THE LOCATION OF THE STAGING AREA AND CONCRETE WASHOUT AREA.

## STABILIZED CONSTRUCTION NOTES

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE APPROACH SHOULD BE NO STEEPER THAN 5:1.
3. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
4. USE 4"-8" STONE OR EQUIVALENT AT A MINIMUM DEPTH OF 12" FOR STABILIZED CONSTRUCTION ENTRANCE.
5. FILTER FABRIC SHOULD BE PLACED UNDERNEATH STONE OF CONSTRUCTION ENTRANCE TO REDUCE THE AMOUNT OF RUTTING AND TO PREVENT STONE FROM BEING EMBEDDED INTO THE SOIL.




B3 CWA CONCRETE WASHOUT AREA
NO SCALE




B4 FILTER FABRIC BARRIER (SILT FENCE)
NO SCALE

## NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24' AT THE TOP AND MIDSECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED 6" AT THE POSTS AND FOLDED.
4. FENCE POSTS SHALL BE CAPABLE OF SUPPORTING FENCE AND MAY BE METAL OR WOOD

## EROSION CONTROL LEGEND

| | |
|---|---|
| 1.60% 130 | PROPOSED DRAINAGE PATH SLOPE VALUE |
| | STABILIZED CONSTRUCTION ENTRANCE, SEE DETAIL THIS SHEET |
| | EXISTING CONTOURS (1' INTERVAL) |
| | PROPOSED CONTOURS (1' INTERVAL) |
| | LIMITS OF DISTURBANCE (AREA AFFECTED BY PROJECT APPROX. 4.23 ACRES) |
| | FLOW DIRECTION (PROPOSED) |
| | FLOW DIRECTION (EXISTING) |
| SF | SILT FENCE, SEE DETAIL THIS SHEET |

FILE NAME: A:\2022\40015 22\03_DSG\NO1_DWG\050_CIVIL\C-003-40015-22.dwg LAYOUT NAME: C-003 PRINTED: Tuesday, October 31, 2023 - 10:05am VEER Sharvy

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SPENSER J. HARVEY 138737 LICENSED PROFESSIONAL ENGINEER 10/31/2023

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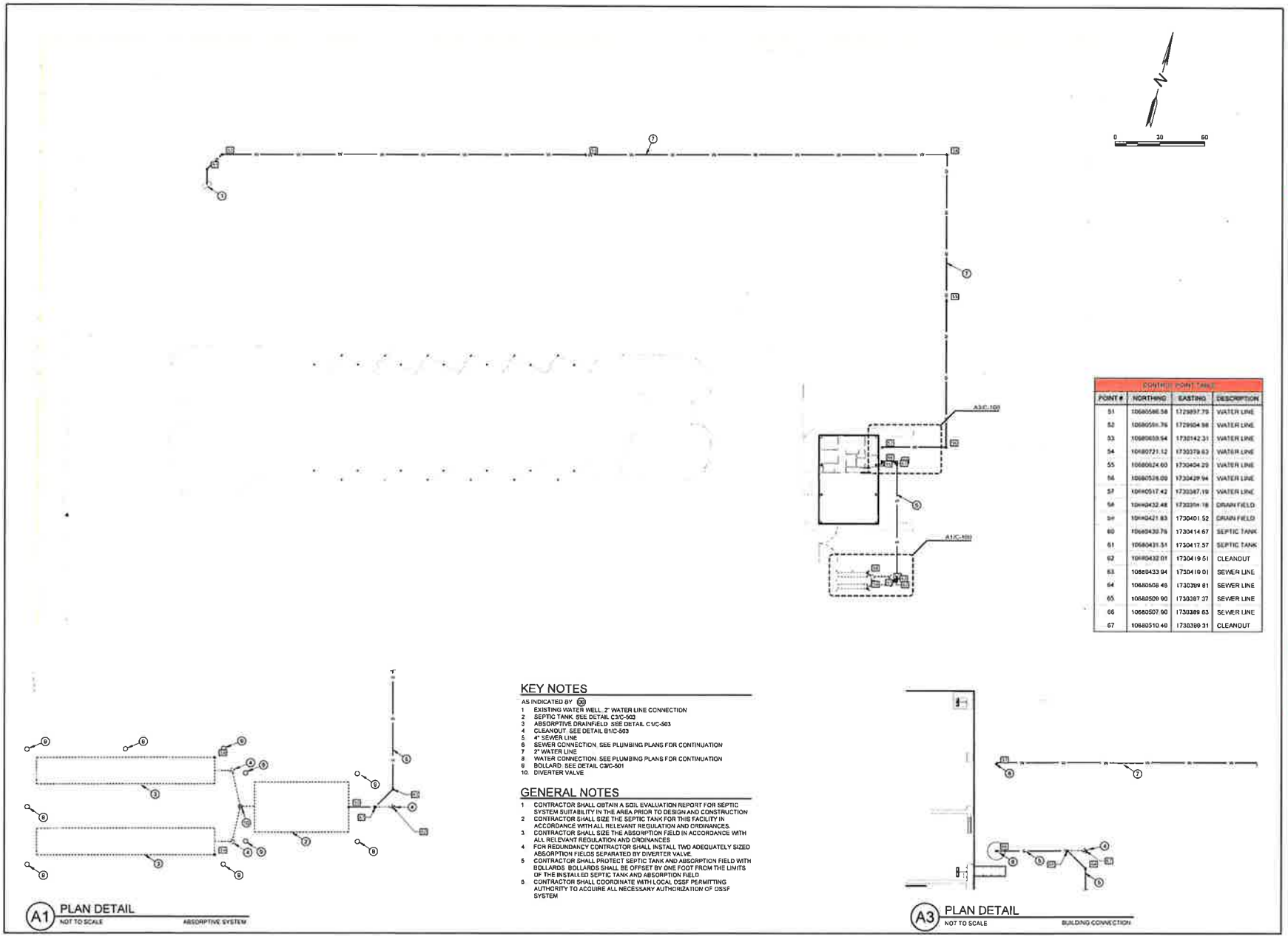
300 N. Loraine
Midland, TX

PROJECT NO.
511921 - WEST
40015 22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

North CCS
Erosion Control
Plan

C-003




CONTROL POINT TABLE

| POINT # | NORTHING | EASTING | DESCRIPTION |
|---|---|---|---|
| 51 | 10680586.58 | 1729897.79 | WATER LINE |
| 52 | 10680591.76 | 1729904.98 | WATER LINE |
| 53 | 10680659.54 | 1730142.31 | WATER LINE |
| 54 | 10680721.12 | 1730379.63 | WATER LINE |
| 55 | 10680624.60 | 1730404.29 | WATER LINE |
| 56 | 10680528.09 | 1730429.94 | WATER LINE |
| 57 | 10680517.42 | 1730387.19 | WATER LINE |
| 58 | 10680432.48 | 1730391.18 | DRAIN FIELD |
| 59 | 10680421.83 | 1730401.52 | DRAIN FIELD |
| 60 | 10680430.79 | 1730414.67 | SEPTIC TANK |
| 61 | 10680431.51 | 1730417.57 | SEPTIC TANK |
| 62 | 10680432.01 | 1730419.51 | CLEANOUT |
| 63 | 10680433.94 | 1730419.01 | SEWER LINE |
| 64 | 10680508.45 | 1730399.81 | SEWER LINE |
| 65 | 10680509.90 | 1730397.37 | SEWER LINE |
| 66 | 10680507.90 | 1730389.63 | SEWER LINE |
| 67 | 10680510.40 | 1730388.31 | CLEANOUT |

## KEY NOTES

AS INDICATED BY (XX)

1. EXISTING WATER WELL, 2" WATER LINE CONNECTION
2. SEPTIC TANK, SEE DETAIL C3/C-503
3. ABSORPTIVE DRAINFIELD. SEE DETAIL C1/C-503
4. CLEANOUT. SEE DETAIL B1/C-503
5. 4" SEWER LINE
6. SEWER CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION
7. 2" WATER LINE
8. WATER CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION
9. BOLLARD. SEE DETAIL C3/C-501
10. DIVERTER VALVE

## GENERAL NOTES

1. CONTRACTOR SHALL OBTAIN A SOIL EVALUATION REPORT FOR SEPTIC SYSTEM SUITABILITY IN THE AREA PRIOR TO DESIGN AND CONSTRUCTION
2. CONTRACTOR SHALL SIZE THE SEPTIC TANK FOR THIS FACILITY IN ACCORDANCE WITH ALL RELEVANT REGULATION AND ORDINANCES.
3. CONTRACTOR SHALL SIZE THE ABSORPTION FIELD IN ACCORDANCE WITH ALL RELEVANT REGULATION AND ORDINANCES
4. FOR REDUNDANCY CONTRACTOR SHALL INSTALL TWO ADEQUATELY SIZED ABSORPTION FIELDS SEPARATED BY DIVERTER VALVE.
5. CONTRACTOR SHALL PROTECT SEPTIC TANK AND ABSORPTION FIELD WITH BOLLARDS. BOLLARDS SHALL BE OFFSET BY ONE FOOT FROM THE LIMITS OF THE INSTALLED SEPTIC TANK AND ABSORPTION FIELD
6. CONTRACTOR SHALL COORDINATE WITH LOCAL OSSF PERMITTING AUTHORITY TO ACQUIRE ALL NECESSARY AUTHORIZATION OF OSSF SYSTEM

A1 PLAN DETAIL
NOT TO SCALE
ABSORPTIVE SYSTEM

A3 PLAN DETAIL
NOT TO SCALE
BUILDING CONNECTION

Parkhill

SPENSER J. HARVEY
136737
10/31/2023

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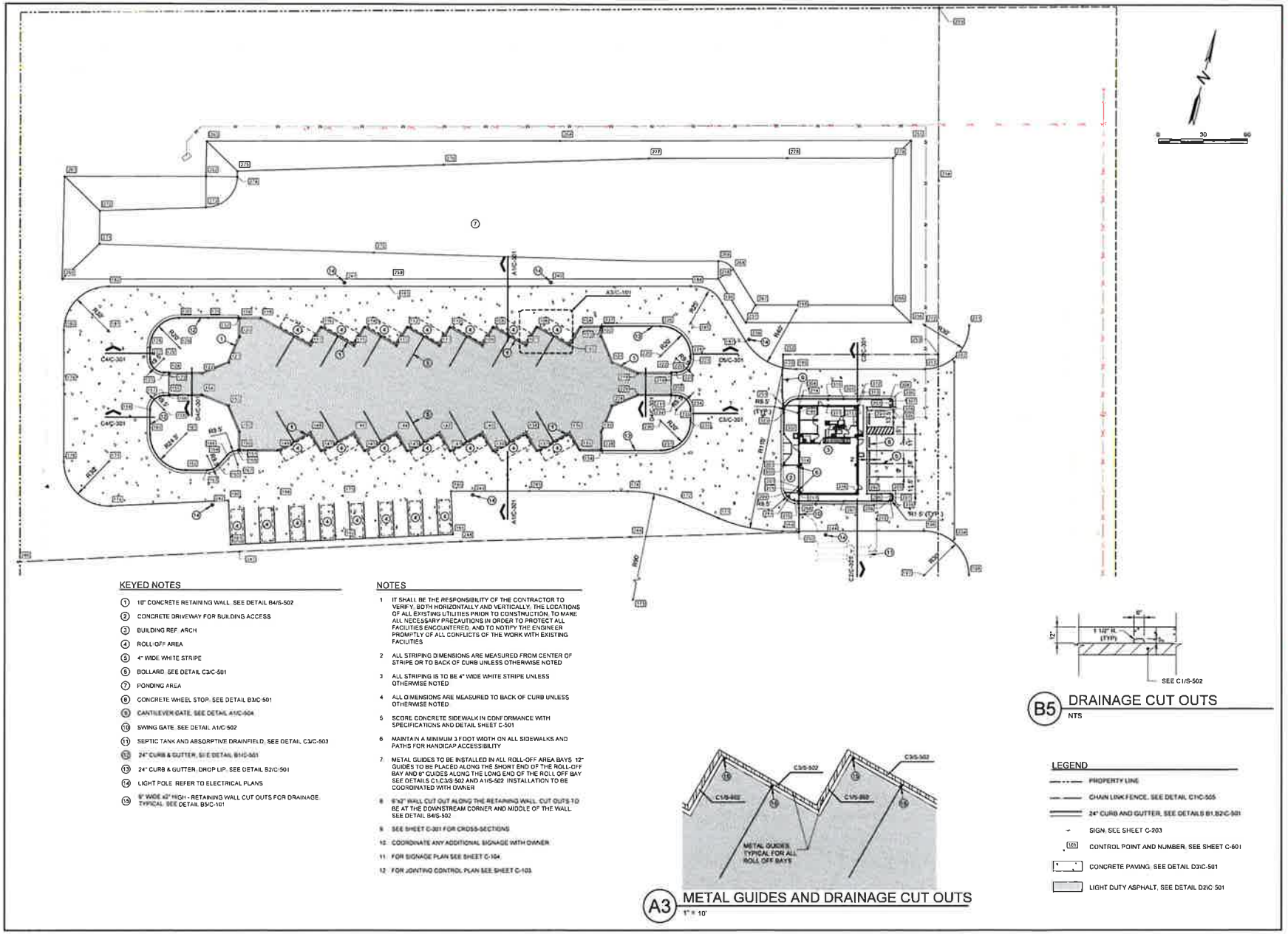
PROJECT NO.
6119.31 - WEST
40615.72 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

**West CCS Site Utility Plan**

**C-100**

FILE NAME: A:\2021\6119.21\02_DSGN\01_DWG\05C_CIVIL\C-100-6119-21.dwg LAYOUT NAME: C-100 PRINTED: Tuesday, October 31, 2023 - 10:05am USER: SHarvey



## KEYED NOTES

1. 10" CONCRETE RETAINING WALL. SEE DETAIL B4/S-502
2. CONCRETE DRIVEWAY FOR BUILDING ACCESS
3. BUILDING REF. ARCH
4. ROLL-OFF AREA
5. 4" WIDE WHITE STRIPE
6. BOLLARD. SEE DETAIL C3/C-501
7. PONDING AREA
8. CONCRETE WHEEL STOP. SEE DETAIL B3/C-501
9. CANTILEVER GATE. SEE DETAIL A1/C-504
10. SWING GATE. SEE DETAIL A1/C-502
11. SEPTIC TANK AND ABSORPTIVE DRAINFIELD. SEE DETAIL C3/C-503
12. 24" CURB & GUTTER, SEE DETAIL B1/C-501
13. 24" CURB & GUTTER, DROP LIP. SEE DETAIL B2/C-501
14. LIGHT POLE. REFER TO ELECTRICAL PLANS
15. 9' WIDE x2" HIGH - RETAINING WALL CUT OUTS FOR DRAINAGE. TYPICAL. SEE DETAIL B3/C-101

## NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY, BOTH HORIZONTALLY AND VERTICALLY, THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. TO MAKE ALL NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED; AND TO NOTIFY THE ENGINEER PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING FACILITIES.
2. ALL STRIPING DIMENSIONS ARE MEASURED FROM CENTER OF STRIPE OR TO BACK OF CURB UNLESS OTHERWISE NOTED
3. ALL STRIPING IS TO BE 4" WIDE WHITE STRIPE UNLESS OTHERWISE NOTED
4. ALL DIMENSIONS ARE MEASURED TO BACK OF CURB UNLESS OTHERWISE NOTED
5. SCORE CONCRETE SIDEWALK IN CONFORMANCE WITH SPECIFICATIONS AND DETAIL SHEET C-501
6. MAINTAIN A MINIMUM 3 FOOT WIDTH ON ALL SIDEWALKS AND PATHS FOR HANDICAP ACCESSIBILITY
7. METAL GUIDES TO BE INSTALLED IN ALL ROLL-OFF AREA BAYS. 12" GUIDES TO BE PLACED ALONG THE SHORT END OF THE ROLL-OFF BAY AND 8" GUIDES ALONG THE LONG END OF THE ROLL OFF BAY SEE DETAILS C1.C3/S-502 AND A1/S-502. INSTALLATION TO BE COORDINATED WITH OWNER
8. 9'x2' WALL CUT OUT ALONG THE RETAINING WALL. CUT OUTS TO BE AT THE DOWNSTREAM CORNER AND MIDDLE OF THE WALL. SEE DETAIL B4/S-502
9. SEE SHEET C-301 FOR CROSS-SECTIONS
10. COORDINATE ANY ADDITIONAL SIGNAGE WITH OWNER
11. FOR SIGNAGE PLAN SEE SHEET C-104.
12. FOR JOINTING CONTROL PLAN SEE SHEET C-103.




A3 METAL GUIDES AND DRAINAGE CUT OUTS
1" = 10'




B5 DRAINAGE CUT OUTS
NTS

## LEGEND

- PROPERTY LINE
- CHAIN LINK FENCE. SEE DETAIL C1/C-505
- 24" CURB AND GUTTER. SEE DETAILS B1,B2/C-501
- SIGN. SEE SHEET C-203
- 101 CONTROL POINT AND NUMBER. SEE SHEET C-601
- CONCRETE PAVING. SEE DETAIL D3/C-501
- LIGHT DUTY ASPHALT. SEE DETAIL D2/C-501

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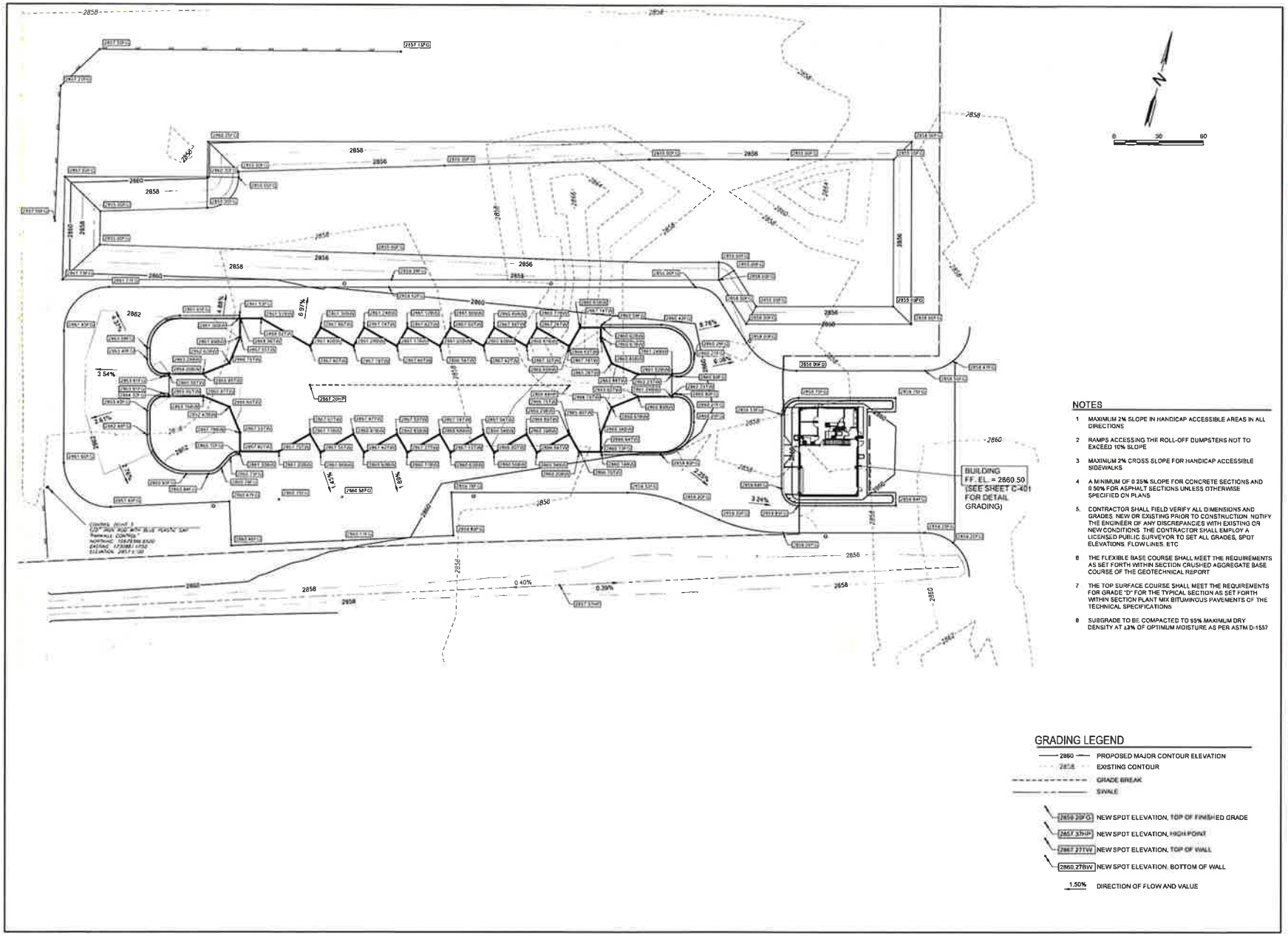
PROJECT NO:
B118.21 - WEST
40815.22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| 1 | 10/31/2023 | Issue for Proposal |

West CCS Site Layout Plan

C-101

FILE NAME: A:\2021\B118.21\02_DSGN\01_DWG\ISS_CAN\C-101-B118-21.dwg LAYOUT NAME: C-101 PRINTED: Tuesday, October 31, 2023 - 10:40am USER: Sweeney




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PROJECT NO
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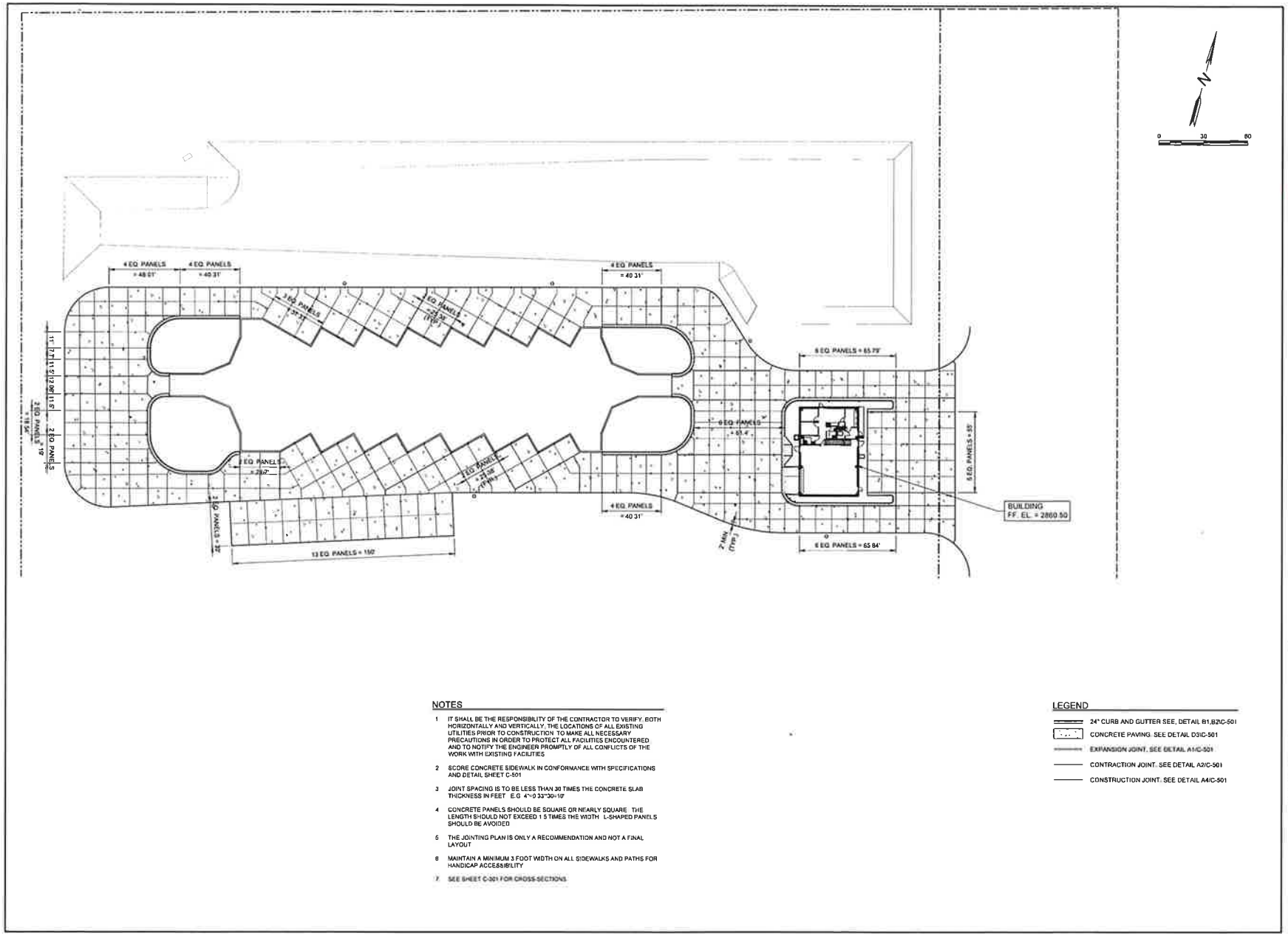
- 10/31/2023 Issue for Proposal

# DATE DESCRIPTION

West CCS Site Grading Plan

C-102

FILE NAME: A:\2021\61192I\02_DWG\050_CIVIL\C-102-61192I-21.dwg LAYOUT NAME: C-102 PRINTED: Tuesday, October 31, 2023 - 10:07am USER: SHarvey




NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY, BOTH HORIZONTALLY AND VERTICALLY, THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. TO MAKE ALL NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED AND TO NOTIFY THE ENGINEER PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING FACILITIES
2. SCORE CONCRETE SIDEWALK IN CONFORMANCE WITH SPECIFICATIONS AND DETAIL SHEET C-501
3. JOINT SPACING IS TO BE LESS THAN 30 TIMES THE CONCRETE SLAB THICKNESS IN FEET E.G. 4"=0.33'*30=10'
4. CONCRETE PANELS SHOULD BE SQUARE OR NEARLY SQUARE. THE LENGTH SHOULD NOT EXCEED 1.5 TIMES THE WIDTH. L-SHAPED PANELS SHOULD BE AVOIDED
5. THE JOINTING PLAN IS ONLY A RECOMMENDATION AND NOT A FINAL LAYOUT
6. MAINTAIN A MINIMUM 3 FOOT WIDTH ON ALL SIDEWALKS AND PATHS FOR HANDICAP ACCESSIBILITY
7. SEE SHEET C-301 FOR CROSS-SECTIONS

LEGEND

- 24" CURB AND GUTTER SEE, DETAIL B1,B2/C-501
- CONCRETE PAVING. SEE DETAIL D3/C-501
- EXPANSION JOINT. SEE DETAIL A1/C-501
- CONTRACTION JOINT. SEE DETAIL A2/C-501
- CONSTRUCTION JOINT. SEE DETAIL A4/C-501

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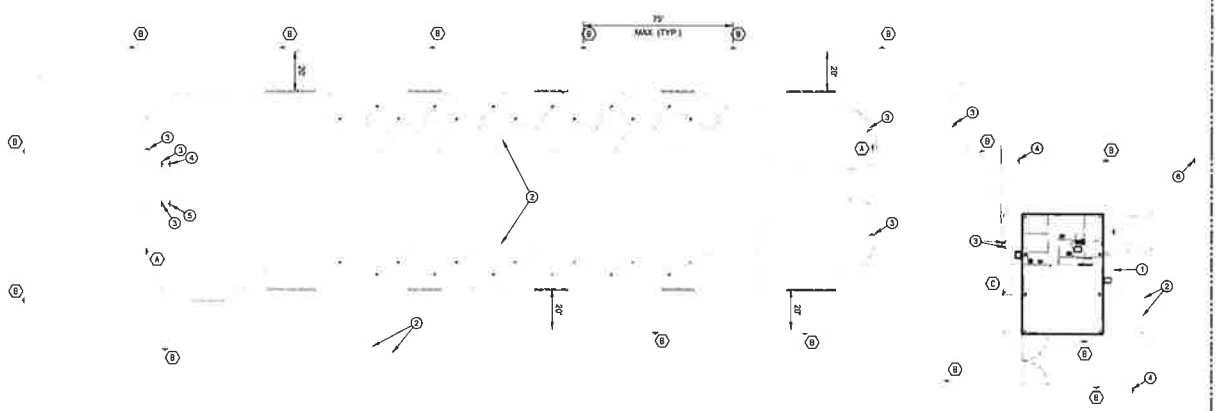
PROJECT NO
611921 - WEST
400152 - NORTH

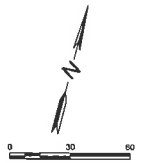
| # | DATE | DESCRIPTION |
|---|---|---|
| 1 | 10/31/2023 | Issue for Proposal |

West CCS Concrete Pavement Jointing Plan

C-103

FILE NAME: A:\2021\611921\03_DESIGN\01_DWG\05D_Civil\C-103-611921.dwg LAYOUT NAME: C-103 PRINTED: Tuesday, October 31, 2023 - 10:08am USER: SMurvey







LETTERING - RED
BACKGROUND - WHITE
BORDER - BLACK

C5 FIRE LANE SIGNS
NOT TO SCALE

## NOTES

1. ALL STRIPING DIMENSIONS ARE MEASURED FROM CENTER OF STRIPE OR TO BACK OF CURB UNLESS OTHERWISE NOTED
2. ALL STRIPING IS TO BE 4" WIDE WHITE STRIPE UNLESS OTHERWISE NOTED
3. COORDINATE ANY ADDITIONAL SIGNAGE WITH OWNER

## KEYED NOTES

1. ACCESSIBLE SPACE SIGN. SEE DETAIL C5/C-501
2. 4" WIDE WHITE STRIPE
3. METAL SIGN "DO NOT ENTER". SEE DETAIL D2/C-502
4. METAL SIGN "STOP". SEE DETAIL D2/C-502
5. METAL SIGN "ONE-WAY". SEE DETAIL D2/C-502
6. ADDRESS SIGN. SEE DETAIL D1/C-502

NEW FIRE LANE SIGN AND TYPE. SEE DETAIL C5/C-104

## LEGEND

SIGN

NO PARKING FIRE LANE
6" WIDE RED BACKGROUND STRIPE WITH 3" HIGH WHITE LETTERS WITH A ONE-HALF INCH STROKE STATING "FIRE LANE - TOW AWAY ZONE" TO BE PAINTED UPON THE RED STRIPE EVERY 50' ALONG THE ENTIRE LENGTH OF THE FIRE LANE.

NEW FIRE LANE SIGN AND TYPE. SEE DETAIL C5/C-104

| SITE DATA - PARKING | MIN. REQUIRED | PROVIDED |
|---|---|---|
| STANDARD SPACES | 2 | 3 |
| ACCESSIBLE SPACES | 1 | 2 |
| TOTAL | | 5 |

NOTE
PARKING SPACES ARE CALCULATED BASED ON CITY OF MIDLAND ZONING ORDINANCE SECTION 6.02 FOR AN INDUSTRIAL USE THAT IS NOT SPECIFICALLY LISTED IN TABLE 6. THE FACILITY IS REQUIRED TO HAVE ONE SPACE FOR EACH TWO EMPLOYEES PER MAXIMUM SHIFT OR ONE SPACE PER EACH 1,000 SQUARE FEET OF FLOOR AREA, WHICH EVER IS GREATER. THE BUILDING IS ~2,445 SQUARE FEET. THE MAXIMUM OCCUPANCY PER SHIFT IS EXPECTED TO BE 4.

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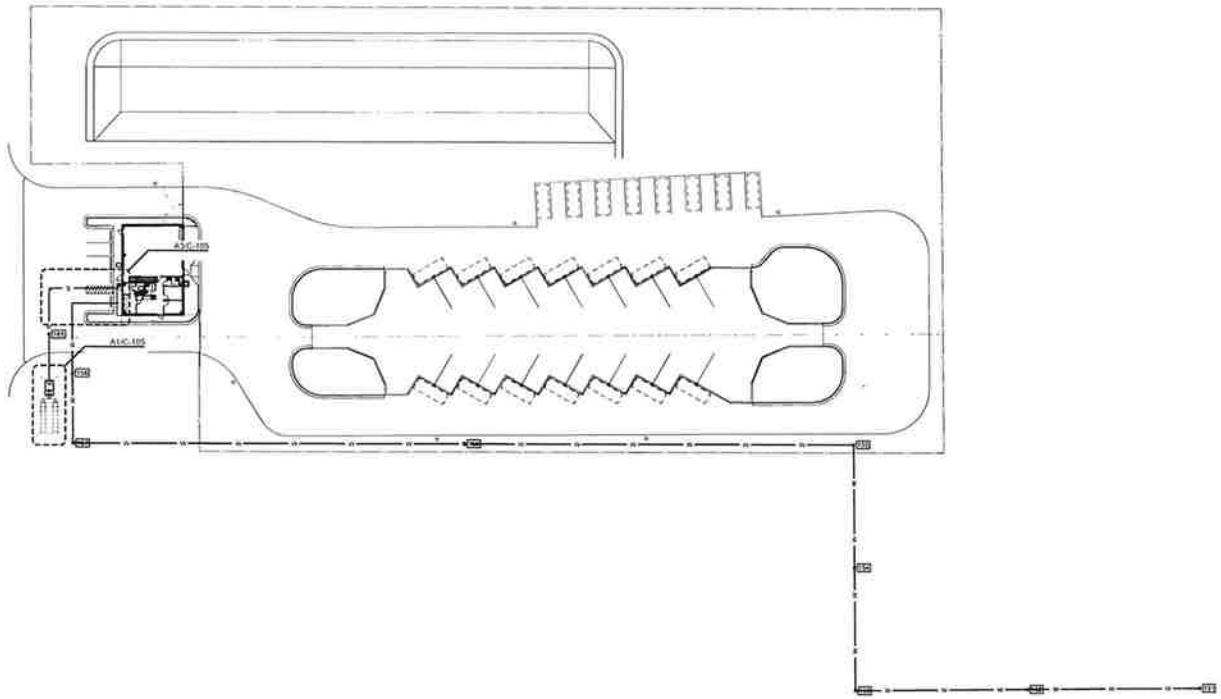
PROJECT NO.
61119.21 - WEST
40018.22 - NORTH

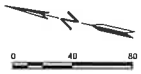
| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

West CCS
Signage
Control Plan

C-104

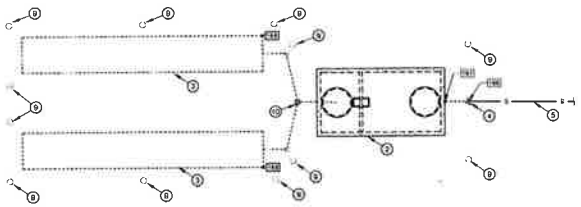
FILE NAME: A:\2021\6118.21\05_DSGN\01_DWG\05D_CIVIL\C-104-61119.21.dwg LAYOUT NAME: C-104 PRINTED: Tuesday, October 31, 2023 - 10:09am USER: Shharvey






CONTROL POINTS

| POINT NAME | NORTHING | EASTING | DESCRIPTION |
|---|---|---|---|
| 151 | 6739154.55 | 855135.07 | TAP SADDLE |
| 152 | 6739266.54 | 855108.53 | WATER LINE |
| 153 | 6739378.53 | 855081.98 | WATER LINE |
| 154 | 6739387.58 | 855162.25 | WATER LINE |
| 155 | 6739416.65 | 855243.51 | WATER LINE |
| 156 | 6739670.17 | 855184.85 | WATER LINE |
| 157 | 6739923.69 | 855127.18 | WATER LINE |
| 158 | 6739934.56 | 855172.93 | WATER LINE |
| 159 | 6739945.42 | 855218.67 | WATER LINE |
| 160 | 6739930.38 | 855222.17 | SEWER LINE |
| 161 | 6739938.02 | 855230.43 | SEWER LINE |
| 162 | 6739960.43 | 855225.48 | SEWER LINE |
| 163 | 6739962.38 | 855225.00 | CLEANOUT |
| 164 | 6739961.92 | 855223.08 | SEWER LINE |
| 165 | 6739955.36 | 855185.08 | SEWER LINE |
| 166 | 6739948.74 | 855186.87 | CLEANOUT |
| 167 | 6739848.28 | 855184.92 | SEPTIC TANK |
| 168 | 6739850.30 | 855149.07 | DRAIN FIELD |
| 169 | 6739939.50 | 855151.61 | DRAIN FIELD |



A1 PLAN DETAIL
NOT TO SCALE
ABSORPTIVE SYSTEM

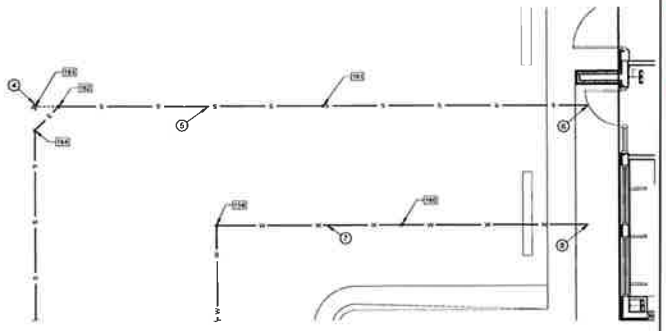
## KEY NOTES

AS INDICATED BY (#)

1. EXISTING WATER WELL, 2" WATER LINE CONNECTION
2. SEPTIC TANK, SEE DETAIL C3/C-504
3. ABSORPTIVE DRAINFIELD, SEE DETAIL C1/C-504
4. CLEANOUT, SEE DETAIL B1/C-504
5. 4" SEWER LINE
6. SEWER CONNECTION, SEE PLUMBING PLANS FOR CONTINUATION
7. 2" WATER LINE
8. WATER CONNECTION, SEE PLUMBING PLANS FOR CONTINUATION
9. BOLLARD, SEE DETAIL C3/C-501
10. DIVERTER VALVE

## GENERAL NOTES

1. CONTRACTOR SHALL OBTAIN A SOIL EVALUATION REPORT FOR SEPTIC SYSTEM SUITABILITY IN THE AREA PRIOR TO DESIGN AND CONSTRUCTION
2. CONTRACTOR SHALL SIZE THE SEPTIC TANK FOR THIS FACILITY IN ACCORDANCE WITH ALL RELEVANT REGULATION AND ORDINANCES.
3. CONTRACTOR SHALL SIZE THE ABSORPTION FIELD IN ACCORDANCE WITH ALL RELEVANT REGULATION AND ORDINANCES
4. FOR REDUNDANCY CONTRACTOR SHALL INSTALL TWO ADEQUATELY SIZED ABSORPTION FIELDS SEPARATED BY DIVERTER VALVE
5. CONTRACTOR SHALL PROTECT SEPTIC TANK AND ABSORPTION FIELD WITH BOLLARDS. BOLLARDS SHALL BE OFFSET BY ONE FOOT FROM THE LIMITS OF THE INSTALLED SEPTIC TANK AND ABSORPTION FIELD
6. CONTRACTOR SHALL COORDINATE WITH LOCAL OSSF PERMITTING AUTHORITY TO ACQUIRE ALL NECESSARY AUTHORIZATION OF OSSF SYSTEM



A3 PLAN DETAIL
NOT TO SCALE
BUILDING CONNECTION

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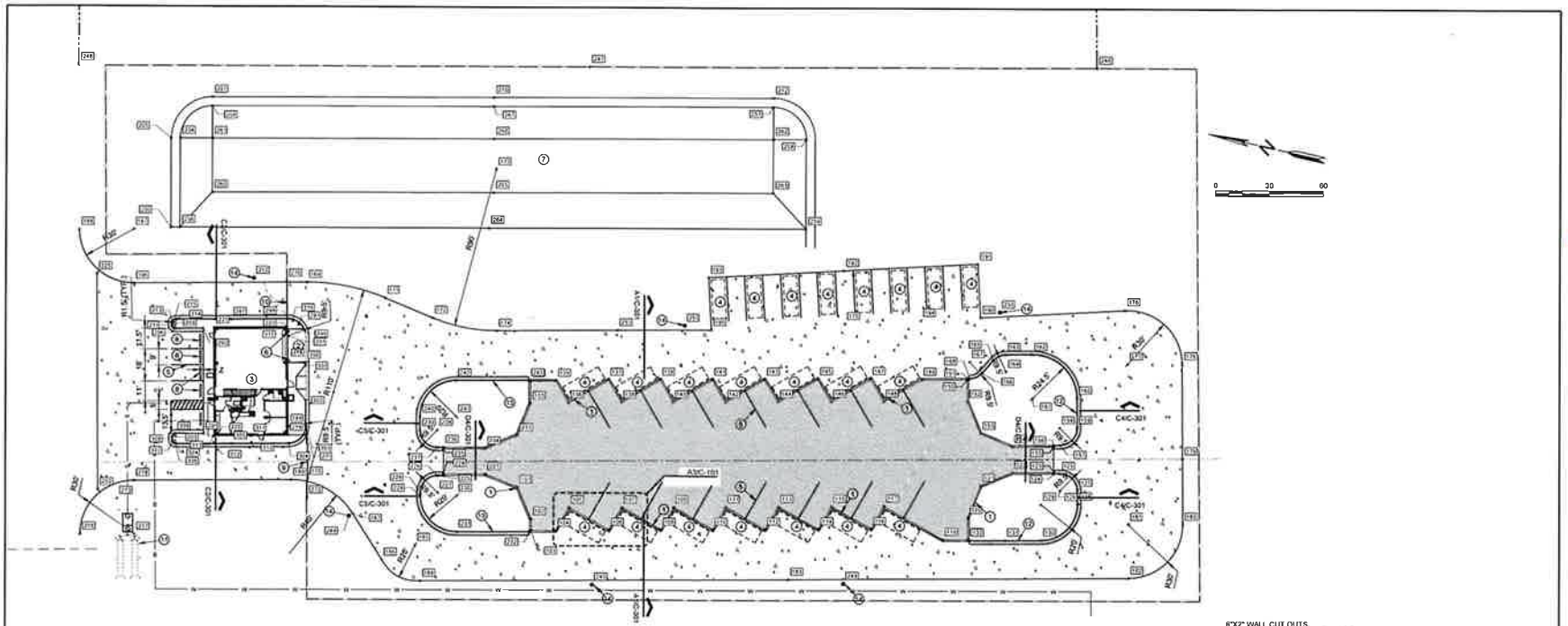
PROJECT NO.
61121 - WEST
40015 22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

**North CCS Site Utility Plan**

**C-105**

FILE NAME: A:\2022\40015.22\03_DSGN\01_DWG\050_CIVIL\C-105-40015.22.dwg LAYOUT NAME: C-105 PRINTED: Tuesday, October 31, 2023 - 10:10am USER: SHarvey

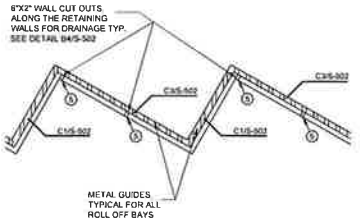


## KEYED NOTES

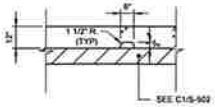
1. 10" CONCRETE RETAINING WALL, SEE DETAIL B4/S-502
2. CONCRETE DRIVEWAY FOR BUILDING ACCESS
3. BUILDING REF. ARCH
4. ROLL-OFF AREA
5. 4" WIDE WHITE STRIPE
6. BOLLARD, SEE DETAIL C3/C-501
7. PONDING AREA
8. CONCRETE WHEEL STOP, SEE DETAIL B3/C-501
9. CANTILEVER GATE, SEE DETAIL A1/C-504
10. SAWTOOTH CURB & GUTTER, SEE DETAIL C1/C-501
11. SEPTIC TANK AND ABSORPTIVE DRAINFIELD, SEE DETAIL C3/C-503
12. 24" CURB & GUTTER, SEE DETAIL B1/C-501
13. 24" CURB & GUTTER, DROP LIP, SEE DETAIL B2/C-501
14. LIGHT POLE, REFER TO ELECTRICAL PLANS
15. 8" WIDE x2" HIGH - RETAINING WALL CUT OUTS FOR DRAINAGE, TYPICAL, SEE DETAIL A3/C-106

## NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY, BOTH HORIZONTALLY AND VERTICALLY, THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. TO MAKE ALL NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED, AND TO NOTIFY THE ENGINEER PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING FACILITIES
2. ALL STRIPING DIMENSIONS ARE MEASURED FROM CENTER OF STRIPE OR TO BACK OF CURB UNLESS OTHERWISE NOTED
3. ALL STRIPING IS TO BE 4" WIDE WHITE STRIPE UNLESS OTHERWISE NOTED
4. ALL DIMENSIONS ARE MEASURED TO BACK OF CURB UNLESS OTHERWISE NOTED
5. SCORE CONCRETE SIDEWALK IN CONFORMANCE WITH SPECIFICATIONS AND DETAIL SHEET C-501
6. MAINTAIN A MINIMUM 3 FOOT WIDTH ON ALL SIDEWALKS AND PATHS FOR HANDICAP ACCESSIBILITY
7. METAL GUIDES TO BE INSTALLED IN ALL ROLL-OFF AREA BAYS. 12" GUIDES TO BE PLACED ALONG THE SHORT END OF THE ROLL-OFF BAY AND 8" GUIDES ALONG THE LONG END OF THE ROLL OFF BAY SEE DETAILS C1, C3/S-502 AND A1/S-502. INSTALLATION TO BE COORDINATED WITH OWNER
8. 8"x2" WALL CUT OUT ALONG THE RETAINING WALL. CUT OUTS TO BE AT THE DOWNSTREAM CORNER AND MIDDLE OF THE WALL SEE DETAIL B4/S-502
9. SEE SHEET C-301 FOR CROSS-SECTIONS
10. COORDINATE ANY ADDITIONAL SIGNAGE WITH OWNER
11. FOR SIGNAGE PLAN SEE SHEET C-104
12. FOR JOINTING CONTROL PLAN SEE SHEET C-103




C4 METAL GUIDES AND DRAINAGE CUT OUTS
1" = 10'




A3 DRAINAGE CUT OUTS
NTS

## LEGEND

- PROPERTY LINE
- CHAIN LINK FENCE, SEE DETAIL C1/C-505
- 24" CURB AND GUTTER, SEE DETAILS B1,B2/C-501
- SIGN, SEE SHEET C-203
- 501 CONTROL POINT AND NUMBER, SEE SHEET C-601
- CONCRETE PAVING, SEE DETAIL D3/C-501
- CONCRETE SIDEWALK, SEE DETAIL B4/C-501
- LIGHT DUTY ASPHALT, SEE DETAIL D2/C-501

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10/31/2023

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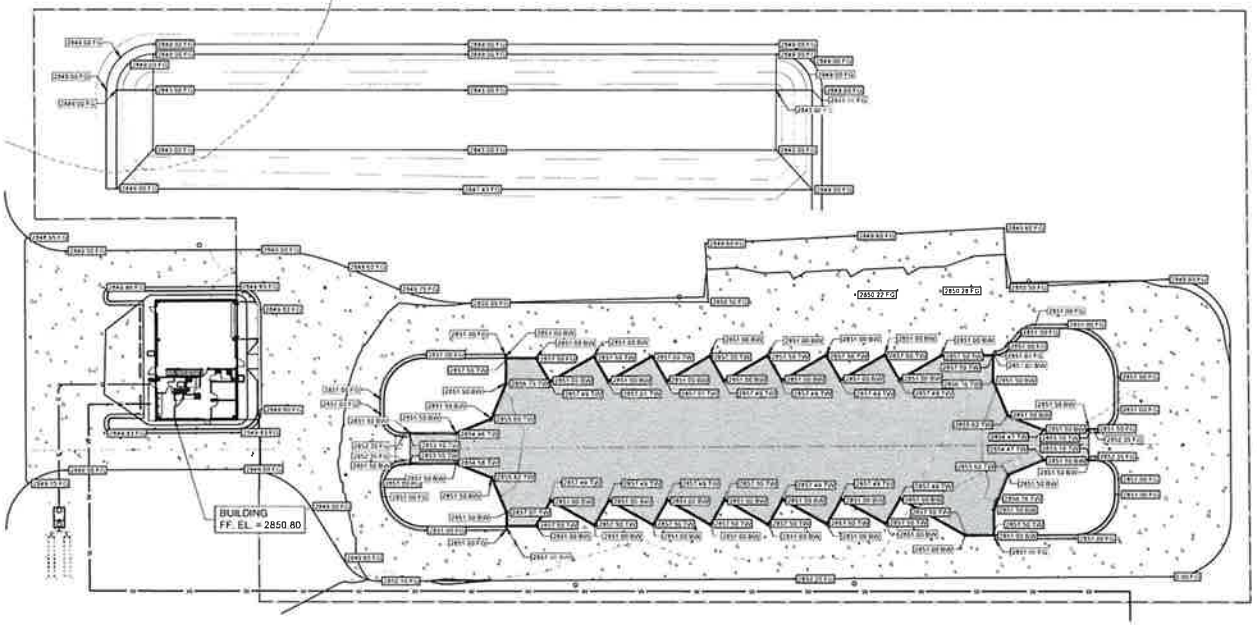
PROJECT NO.
611921 - WEST
40015.22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

North CCS Site Layout Plan

C-106

FILE NAME: A:\2022\40015.22\03_DESIGN\01_DWG\SD\C_CIVIL\C-106-40015-22.dwg LAYOUT NAME: C-106 PRINTED: Tuesday, October 31, 2023 - 10:44am USER: Shaney




0 30 60

NOTES

1. MAXIMUM 2% SLOPE IN HANDICAP ACCESSIBLE AREAS IN ALL DIRECTIONS
2. RAMPS ACCESSING THE ROLL-OFF DUMPSTERS NOT TO EXCEED 10% SLOPE
3. MAXIMUM 2% CROSS SLOPE FOR HANDICAP ACCESSIBLE SIDEWALKS
4. A MINIMUM OF 0.25% SLOPE FOR CONCRETE SECTIONS AND 0.50% FOR ASPHALT SECTIONS UNLESS OTHERWISE SPECIFIED ON PLANS
5. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND GRADES, NEW OR EXISTING PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER OF ANY DISCREPANCIES WITH EXISTING OR NEW CONDITIONS. THE CONTRACTOR SHALL EMPLOY A LICENSED PUBLIC SURVEYOR TO SET ALL GRADES, SPOT ELEVATIONS, FLOW LINES, ETC
6. THE FLEXIBLE BASE COURSE SHALL MEET THE REQUIREMENTS AS SET FORTH WITHIN SECTION CRUSHED AGGREGATE BASE COURSE OF THE GEOTECHNICAL REPORT
7. THE TOP SURFACE COURSE SHALL MEET THE REQUIREMENTS FOR GRADE "D" FOR THE TYPICAL SECTION AS SET FORTH WITHIN SECTION PLANT MIX BITUMINOUS PAVEMENTS OF THE TECHNICAL SPECIFICATIONS
8. SUBGRADE TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY AT ±3% OF OPTIMUM MOISTURE AS PER ASTM D-1557

GRADING LEGEND

- 2860 — PROPOSED MAJOR CONTOUR ELEVATION
- 2858 — EXISTING CONTOUR
- GRADE BREAK
- SWALE
- 2859.20FG NEW SPOT ELEVATION, TOP OF FINISHED GRADE
- 2857.37HP NEW SPOT ELEVATION, HIGH POINT
- 2867.27TW NEW SPOT ELEVATION, TOP OF WALL
- 2860.27BW NEW SPOT ELEVATION, BOTTOM OF WALL
- 1.50% DIRECTION OF FLOW AND VALUE

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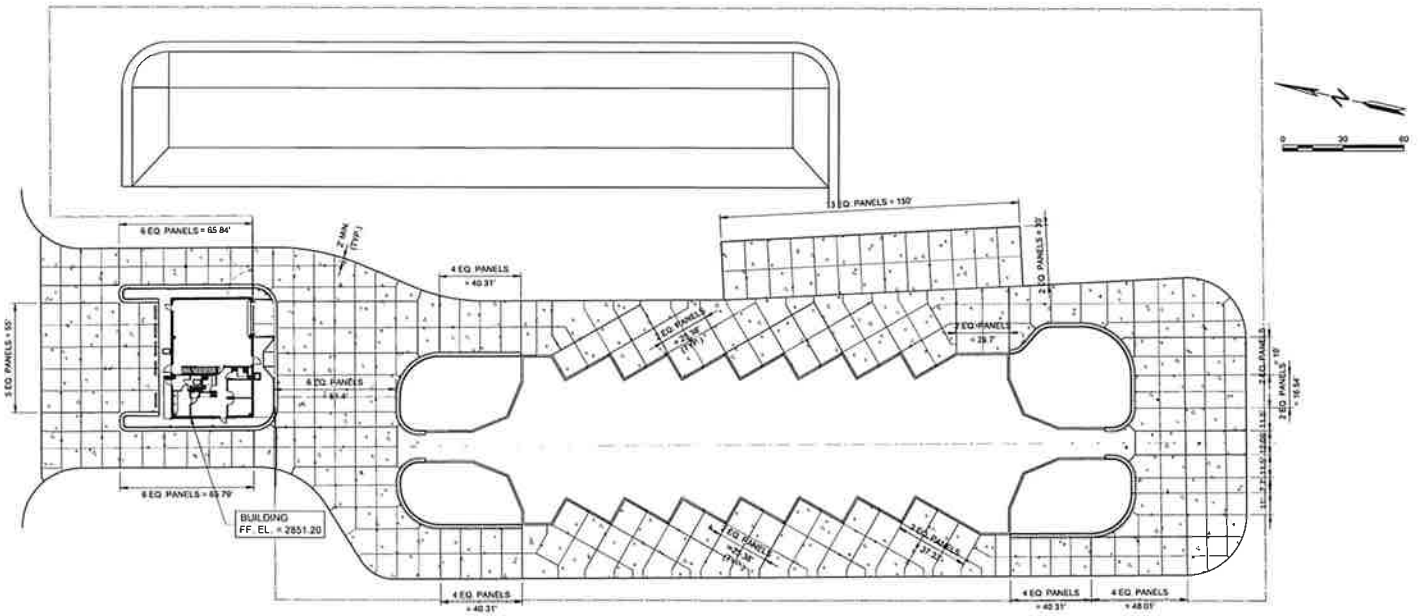
PROJECT NO
611921 - WEST
40015.22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

North CCS Site Grading Plan

C-107

FILE NAME: A:\2022\40015.22\03_DSGN\01_DWG\050_CIVIL\C-107-40015-22.dwg LAYOUT NAME: C-107 PRINTED: Tuesday, October 31, 2023 - 10:12am USER: SHarvey




NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY, BOTH HORIZONTALLY AND VERTICALLY, THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. TO MAKE ALL NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED AND TO NOTIFY THE ENGINEER PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING FACILITIES
2. SCORE CONCRETE SIDEWALK IN CONFORMANCE WITH SPECIFICATIONS AND DETAIL SHEET C-501
3. JOINT SPACING IS TO BE LESS THAN 30 TIMES THE CONCRETE SLAB THICKNESS IN FEET. E.G. 4"=0.33*30=10'
4. CONCRETE PANELS SHOULD BE SQUARE OR NEARLY SQUARE. THE LENGTH SHOULD NOT EXCEED 1.5 TIMES THE WIDTH. L-SHAPED PANELS SHOULD BE AVOIDED
5. THE JOINTING PLAN IS ONLY A RECOMMENDATION AND NOT A FINAL LAYOUT
6. MAINTAIN A MINIMUM 3 FOOT WIDTH ON ALL SIDEWALKS AND PATHS FOR HANDICAP ACCESSIBILITY
7. SEE SHEET C-301 FOR CROSS-SECTIONS

LEGEND

- 24" CURB AND GUTTER SEE, DETAIL B1.B2/C-501
- CONCRETE PAVING, SEE DETAIL D3/C-501
- EXPANSION JOINT, SEE DETAIL A4/C-501
- CONTRACTION JOINT, SEE DETAIL A2/C-501
- CONSTRUCTION JOINT, SEE DETAIL A4/C-501

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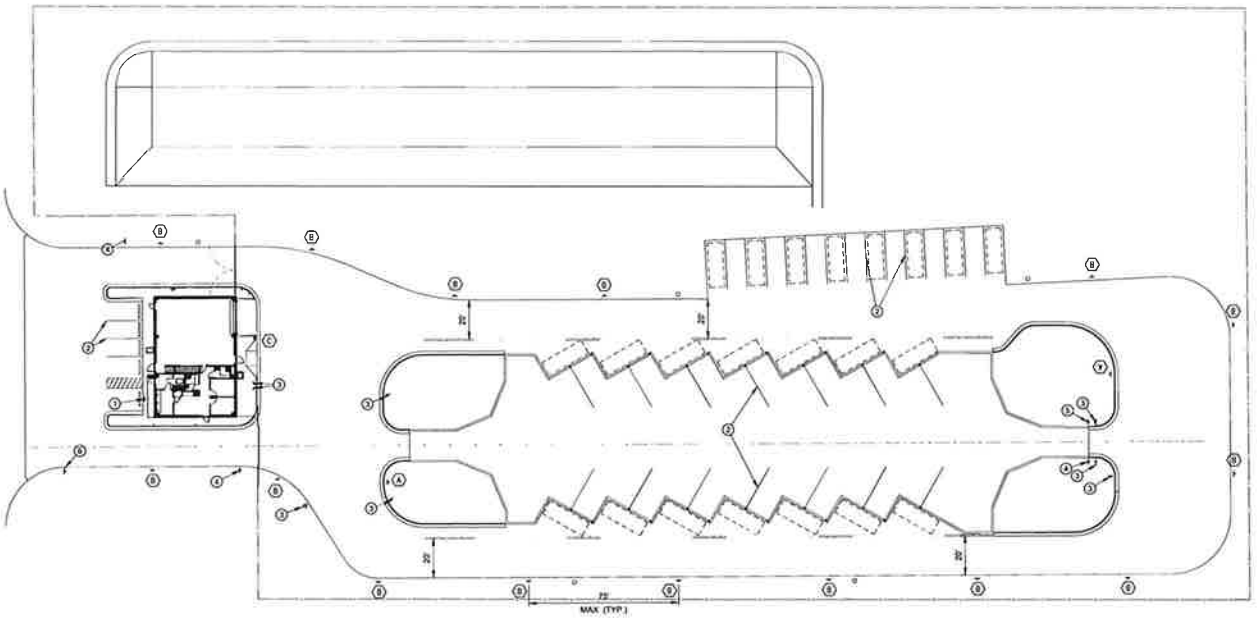
PROJECT NO.
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| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

North CCS Pavement Jointing Plan

C-108

FILE NAME: A:\2022\40015.22\03_DSGN\01_DWG\250_CIVIL\C-108-40015-22.dwg LAYOUT NAME: C-108 PRINTED: Tuesday, October 31, 2023 - 10:13am USER: SHarvey










LETTERING - RED
BACKGROUND - WHITE
BORDER - BLACK

C5 FIRE LANE SIGNS
NOT TO SCALE

## NOTES

1. ALL STRIPING DIMENSIONS ARE MEASURED FROM CENTER OF STRIPE OR TO BACK OF CURB. MARKED WITH (F) DENOTES DIMENSIONED TO FACE OF CURB.
2. ALL STRIPING IS TO BE 4" WIDE WHITE STRIPE UNLESS OTHERWISE NOTED.
3. COORDINATE ANY ADDITIONAL SIGNAGE WITH OWNER.

## KEYED NOTES

1. ACCESSIBLE SPACE SIGN. SEE DETAIL C5/C-501
2. 4" WIDE WHITE STRIPE
3. METAL SIGN "DO NOT ENTER". SEE DETAIL D2/C-502
4. METAL SIGN "STOP". SEE DETAIL D2/C-502
5. METAL SIGN "ONE-WAY". SEE DETAIL D2/C-502
6. ADDRESS SIGN. SEE DETAIL D1/C-502
- NEW FIRE LANE SIGN AND TYPE. SEE DETAIL C5/C-104

## LEGEND

- SIGN
- NO PARKING FIRE LANE
  6" WIDE RED BACKGROUND STRIPE WITH 3" HIGH WHITE LETTERS WITH A ONE-HALF INCH STROKE STATING "FIRE LANE - TOW AWAY ZONE" TO BE PAINTED UPON THE RED STRIPE EVERY 50' ALONG THE ENTIRE LENGTH OF THE FIRE LANE.
- NEW FIRE LANE SIGN AND TYPE. SEE DETAIL C5/C-104.

| SITE DATA - PARKING | MIN. REQUIRED | PROVIDED |
|---|---|---|
| STANDARD SPACES | 2 | 3 |
| ACCESSIBLE SPACES | 1 | 2 |
| TOTAL | | 5 |

NOTE:
PARKING SPACES ARE CALCULATED BASED ON CITY OF MIDLAND ZONING ORDINANCE SECTION 8.02 FOR AN INDUSTRIAL USE THAT IS NOT SPECIFICALLY LISTED IN TABLE 6. THE FACILITY IS REQUIRED TO HAVE ONE SPACE FOR EACH TWO EMPLOYEES PER MAXIMUM SHIFT OR ONE SPACE PER EACH 1,000 SQUARE FEET OF FLOOR AREA, WHICH EVER IS GREATER. THE BUILDING IS ~2,445 SQUARE FEET. THE MAXIMUM OCCUPANCY PER SHIFT IS EXPECTED TO BE 4.

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10/31/2023

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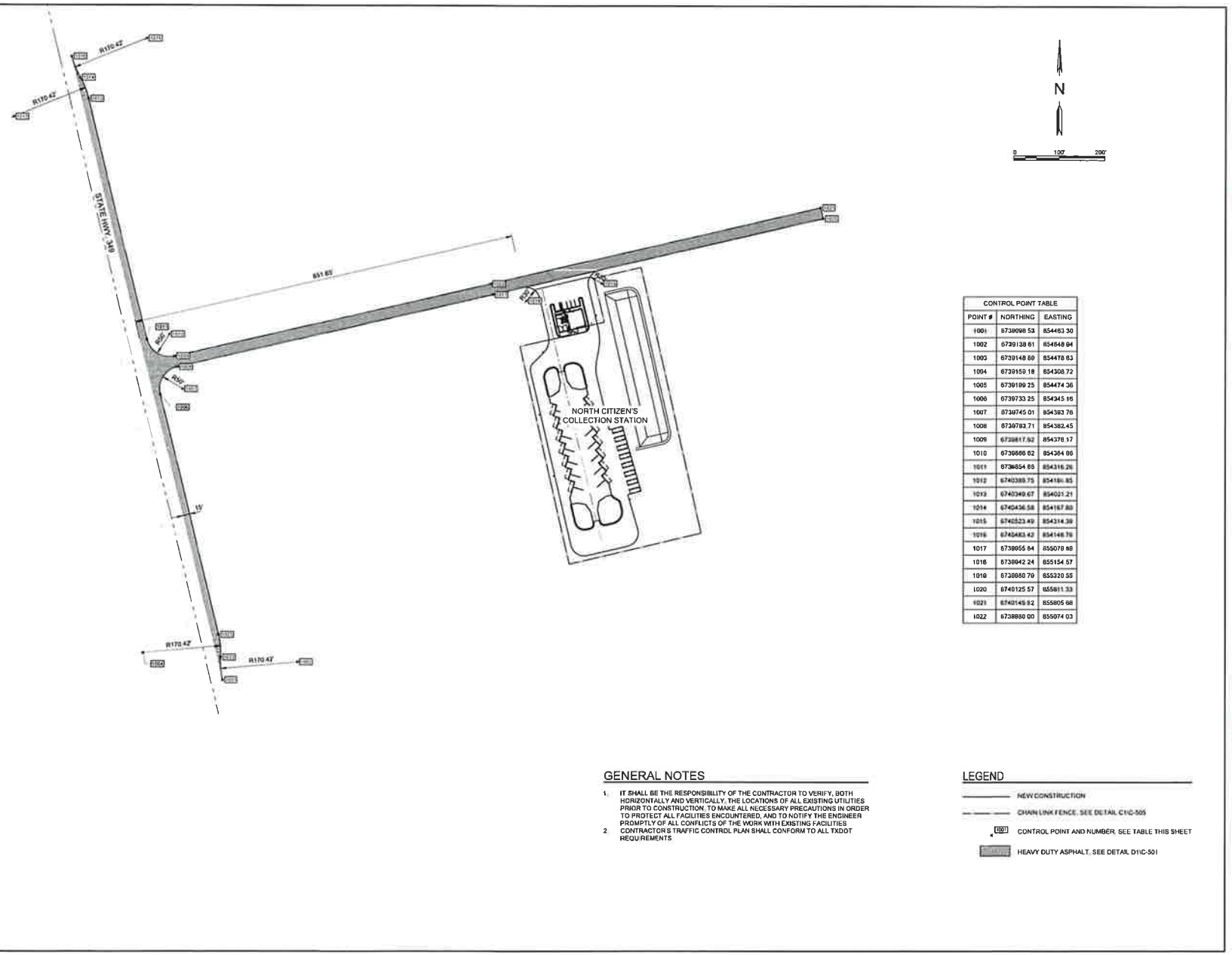
PROJECT NO.
8119.21 - WEST
40015.22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

North CCS
Signage
Control Plan

C-109

FILE NAME: A:\2022\40015.22\03_DESIGN\01_DWG\05b_CIVIL\C-109-40015.22.dwg LAYOUT NAME: C-109 PRINTED: Tuesday, October 31, 2023 - 10:14am USER: SHarvey




| CONTROL POINT TABLE | | |
|---|---|---|
| POINT # | NORTHING | EASTING |
| 1001 | 6739098.53 | 854483.30 |
| 1002 | 6739138.61 | 854648.94 |
| 1003 | 6739148.89 | 854478.83 |
| 1004 | 6739159.18 | 854308.72 |
| 1005 | 6739199.25 | 854474.36 |
| 1006 | 6739733.25 | 854345.16 |
| 1007 | 6739745.01 | 854383.76 |
| 1008 | 6739783.71 | 854382.45 |
| 1009 | 6739817.92 | 854378.17 |
| 1010 | 6739888.82 | 854364.86 |
| 1011 | 6739854.85 | 854316.26 |
| 1012 | 6740389.75 | 854186.85 |
| 1013 | 6740349.67 | 854021.21 |
| 1014 | 6740436.58 | 854167.80 |
| 1015 | 6740523.49 | 854314.39 |
| 1016 | 6740483.42 | 854146.76 |
| 1017 | 6738955.64 | 855070.88 |
| 1018 | 6738942.24 | 855154.57 |
| 1019 | 6738880.79 | 855320.55 |
| 1020 | 6740125.57 | 855811.33 |
| 1021 | 6740145.82 | 855805.68 |
| 1022 | 6738880.00 | 855074.03 |

## GENERAL NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY, BOTH HORIZONTALLY AND VERTICALLY, THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, TO MAKE ALL NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED, AND TO NOTIFY THE ENGINEER PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING FACILITIES
2. CONTRACTOR'S TRAFFIC CONTROL PLAN SHALL CONFORM TO ALL TXDOT REQUIREMENTS

## LEGEND

- NEW CONSTRUCTION
- CHAIN LINK FENCE, SEE DETAIL C1IC-505
- 1001 CONTROL POINT AND NUMBER, SEE TABLE THIS SHEET
- HEAVY DUTY ASPHALT, SEE DETAIL D1IC-501

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10/31/2023

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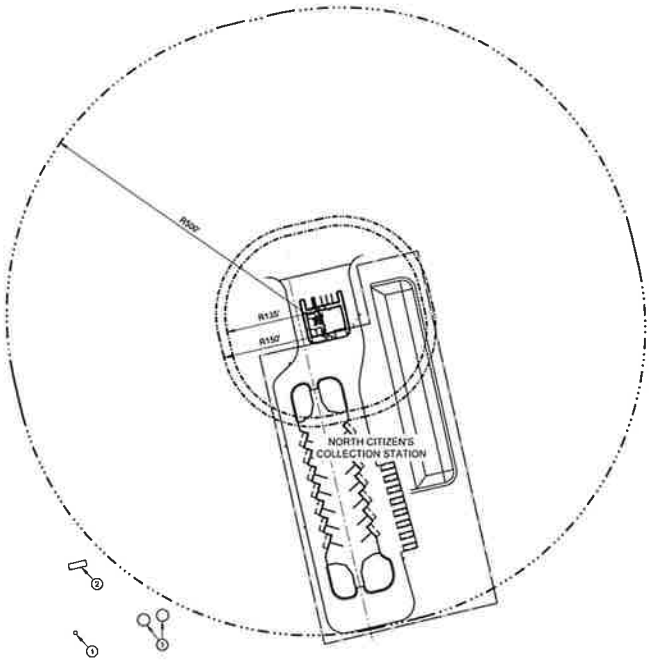
PROJECT NO.
8119.21 - WEST
40015.22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

North CCS
Site Access
Plan

C-110

FILE NAME: A:\2022\40015.22\03_DSIGN\01_DWG\05b_CIVIL\C-110-40015-22.dwg LAYOUT NAME: C-110 PRINTED: Tuesday, October 31, 2023 - 10:15am USER: SHenry




## GENERAL NOTES

1. NO OCCUPIED COMMERCIAL STRUCTURE OR OCCUPIED PUBLIC BUILDING SHALL BE WITHIN 500 FEET OF ANY OIL AND GAS WELL
2. NO PUBLICLY DEDICATED STREET OR ALLEY RIGHT-OF-WAY, WITHIN THE CITY OF MIDLAND SHALL BE WHTIN 135 FEET OF ANY OIL AND GAS WELL
3. IN NO EVENT SHALL A BUILDING PERMIT BE ISSUED BY THE CITY OF MIDLAND FOR ANY PRIVATE RESIDENCE OR COMMERCIAL BUILDING TO BE CONSTRUCTED, EITHER IN WHOLE OR IN PART, WITHIN 300 FEET OF A PREVIOUSLY PERMITTED BUT UNDRILLED OIL AND GAS WELL OR 135 FEET OF AN EXISTING OIL AND GAS WELL OR WITHIN 150 FEET OF A PREVIOUSLY PERMITTED TANK BATTERY

## KEY NOTES

AS INDICATED BY (##)

1 EXISTING TANK BATTERY
2 EXISTING PUMPJACK

## LEGEND

- NEW CONSTRUCTION
- CHAIN LINK FENCE, SEE DETAIL C1IC-505
- 125-FT OFFSET FROM NEW BUILDING
- 150-FT OFFSET FROM NEW BUILDING
- 500-FT OFFSET FROM NEW BUILDING

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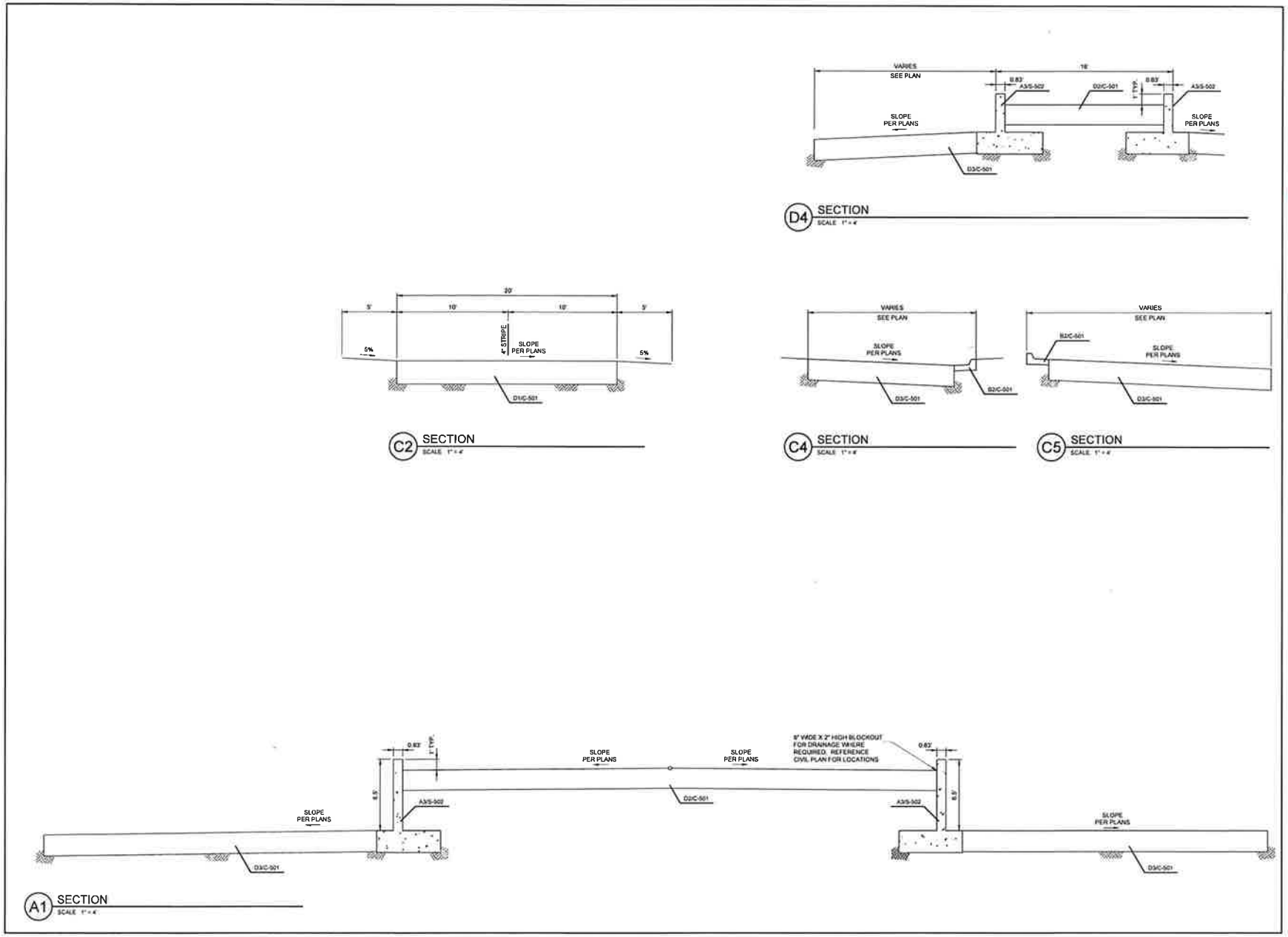
PROJECT NO.
6119.21 - WEST
40015.77 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

**North CCS Proximity to Oil Field Equipment**

**C-111**

FILE NAME: #:\2022\40015.22\03_DSIGN\01_DWG\05_CIVIL\C-111-40015.22.dwg LAYOUT NAME: C-111 PRINTED: Tuesday, October 31, 2023 - 10:16am USER: Shaney




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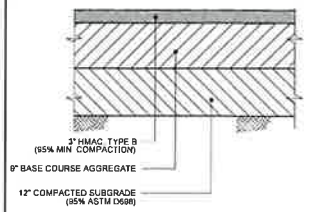
PROJECT NO.
5110.21 - WEST
40015.22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

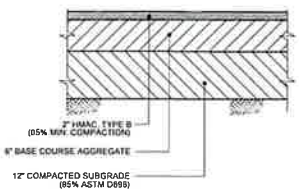
## Site Cross Sections

## C-301

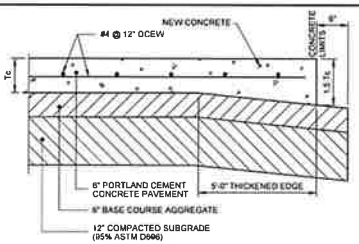
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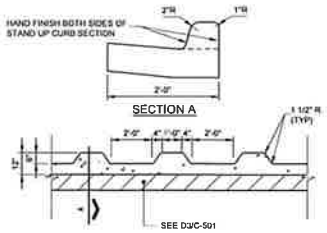

D1 HEAVY DUTY ASPHALT PAVEMENT SECTION
NO SCALE



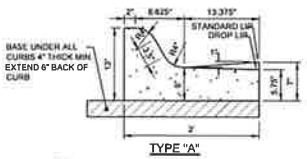

D2 LIGHT DUTY ASPHALT PAVEMENT SECTION
NO SCALE



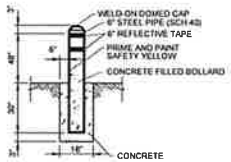

D3 TYPICAL CONCRETE PAVEMENT
NO SCALE



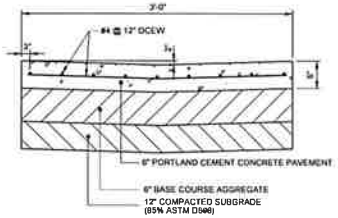

C1 SAWTOOTH CURB & GUTTER
NO SCALE



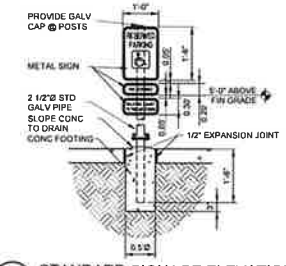

C2 6" CONCRETE CURB
NO SCALE



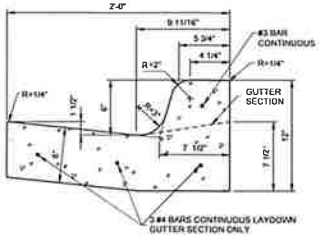

C3 BOLLARD DETAIL
NO SCALE



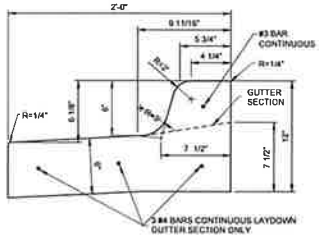

C4 36" VALLEY GUTTER
NO SCALE




C5 STANDARD SIGNAGE ELEVATION
NO SCALE

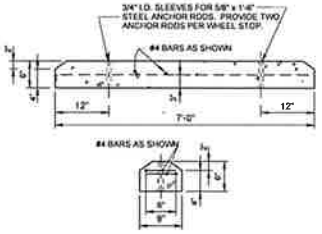



B1 24" CURB AND GUTTER
NO SCALE

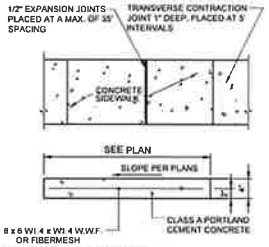



NOTE SCORE CONCRETE CURB AS SPECIFIED

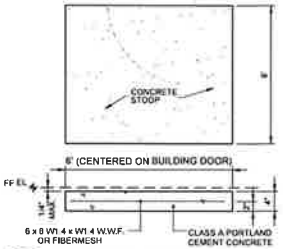
B2 DROP LIP CURB AND GUTTER
NO SCALE



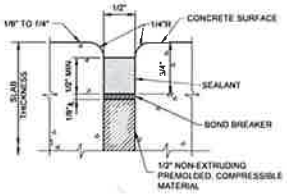

B3 PARKING WHEEL STOP
NO SCALE



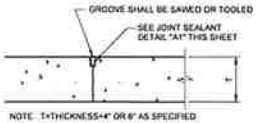

B4 SIDEWALK DETAIL
NO SCALE



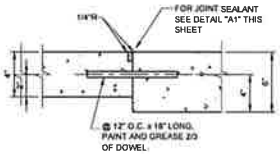

B5 CONCRETE STOOP
NO SCALE



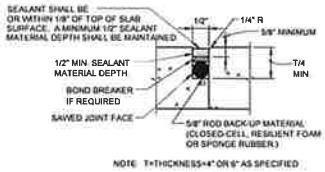

A1 1/2" EXPANSION JOINT SECTION
NO SCALE



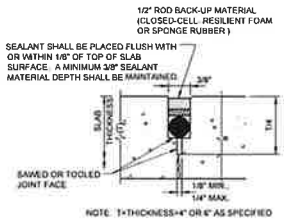

A2 CONTRACTION JOINT
NO SCALE




A3 DOWELED EXPANSION JOINT
NO SCALE




A4 CONSTRUCTION JOINT
NO SCALE




A5 SAWED/TOOLED CONTRACTION JOINT
NO SCALE

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138737
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PROJECT NO.
5110.21 - WEST
#5015.27 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

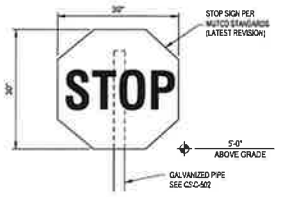
Detail Sheet
C-501

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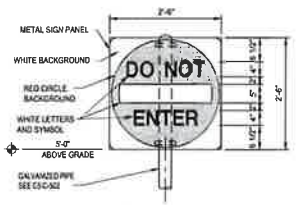



DOUBLE SIDED ADDRESS SIGN 18" WIDE x 10" HIGH BRUSHED ALUMINUM WITH 4 - 8" HIGH RECESSED NUMBERS (9135), 2 - 28" HIGH x 2" STEEL TUBES SET IN 8" x 8" x 12" DEEP CONCRETE FOOTING

D1 ADDRESS SIGN
NO SCALE



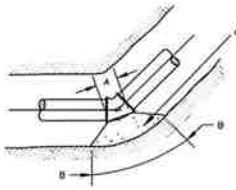

"STOP" SIGN




"DO NOT ENTER" SIGN




D2 METAL SIGNS
NO SCALE



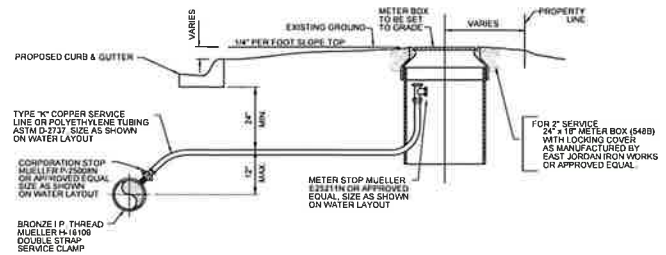

| DIA. OF PIPE | DEGREE OF BEND | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 11 1/4° | | | 22 1/2° | | | 45° | | | 90° | | |
| | A | B | °C | A | B | °C | A | B | °C | A | B | °C |
| 2" TO 4" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" |
| 6" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" |
| 8" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" |
| 10" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" |
| 12" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" |
| 14" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" |
| 16" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" |
| 18" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" | 2'-6" | 1'-0" | 1'-0" |

NOTE

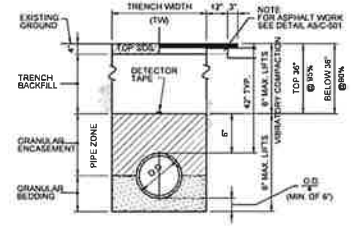
BLOCKING FOR 14" AND 18" 90° BENDS AND ALL BENDS LARGER THEN 15° WILL BE AS SHOWN ON THE PLANS

°C = VERTICAL DEPTH OF CONCRETE BEARING ON UNDISTURBED EARTH

C1 BLOCKING FOR BENDS
NO SCALE




B1 TYPICAL WATER METER SERVICE CONNECTION
NO SCALE



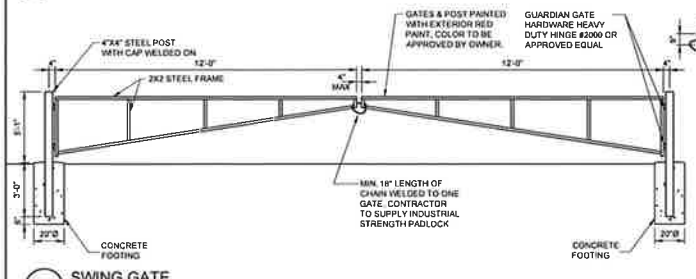

NOTES:

A. ALL GRANULAR BEDDING AND ENCASEMENT SHALL BE THOROUGHLY COMPACTED BY MECHANICAL MEANS IN MAXIMUM 6" LIFTS, TO ACHIEVE OPTIMUM CONSOLIDATION OF MATERIAL. THIS MATERIAL SHALL BE CRUSHED STONE: ASTM C33 GRADE No. 7 or 8.

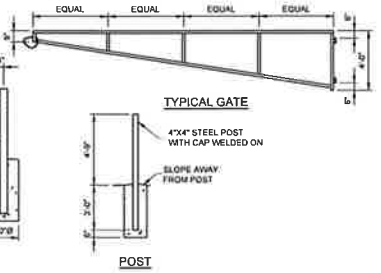
B. ALL ASPHALTIC ROADWAY, DRIVEWAY SURFACES, ETC. SHALL BE SAW CUT PRIOR TO CONSTRUCTING WATER LINES / WATER SERVICES.

C. TRENCH BACKFILL MAY BE MATERIAL GENERATED FROM TRENCH EXCAVATION IF SUITABLE MATERIAL.

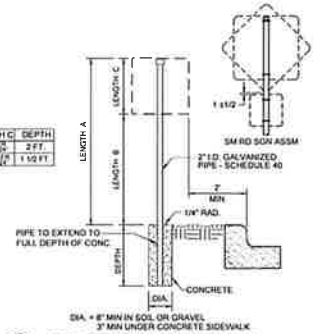
B3 PIPE ROCK BEDDING
NO SCALE



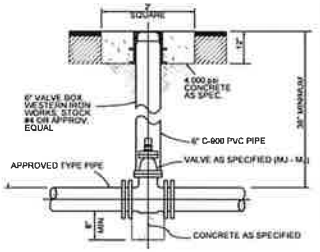

A1 SWING GATE
NO SCALE




| LENGTH A | LENGTH B | LENGTH C | DEPTH |
|---|---|---|---|
| 10 FT. | 7 FT. | | 2 FT. |
| 9 FT. | 7 FT. | | 1 1/2 FT. |




C5 SIGN POST INSTALLATIONS
NO SCALE




B5 VALVE INSTALLATION
NO SCALE

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Citizen Collection Stations

City Of Midland

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Midland, TX

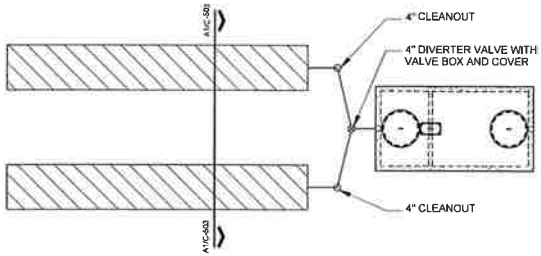
PROJECT NO.
6119.21 - WEST
40015.72 - NORTH

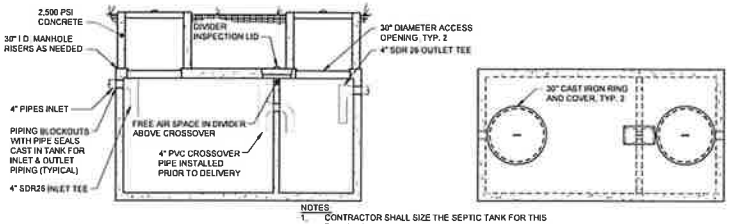
| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

Detail Sheet

C-502

FILE NAME: A:\2021\6119.21\03_DSGN\01_DWG\05_CIVIL\C-502-6119.21.dwg LAYOUT NAME: C-502 PRINTED: Tuesday, October 31, 2023 - 10:20am USER: Shirvey




NOTES:
1. CONTRACTOR SHALL SIZE THE SEPTIC TANK FOR THIS FACILITY IN ACCORDANCE WITH ALL RELEVANT REGULATION AND ORDINANCES
2. CONTRACTOR SHALL PROTECT SEPTIC TANK WITH BOLLARDS.
3. SEPTIC TANK SHALL BE A PRECAST CONCRETE SEPTIC TANK OR APPROVED EQUAL
4. SEPTIC TANK SHALL HAVE MINIMUM CAPACITY AS RECOMMENDED IN SITE EVALUATION REPORT.

## C3 SEPTIC TANK
NOT TO SCALE

## DESIGN ANALYSIS

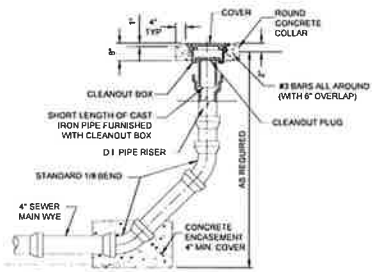
1 CONTRACTOR SHALL OBTAIN A SOIL EVALUATION REPORT FOR SEPTIC SYSTEM SUITABILITY IN THE AREA PRIOR TO DESIGN AND CONSTRUCTION

2 CONTRACTOR SHALL COORDINATE WITH LOCAL OSSF PERMITTING AUTHORITY TO ACQUIRE ALL NECESSARY AUTHORIZATION OF OSSF SYSTEM

## LEGEND

4" SANITARY SEWER (PVC, SDR-26)
36" HIGH CAPACITY LEACHING CHAMBER
4" DIVERTER VALVE
4" CLEAN OUT

## C1 ABSORPTIVE DRAINFIELD LAYOUT
1" = 4'-0"




## B1 CLEANOUT DETAIL
NOT TO SCALE




NOTES

1. CONTRACTOR SHALL OBTAIN A SOIL EVALUATION REPORT FOR SEPTIC SYSTEM SUITABILITY IN THE AREA PRIOR TO DESIGN AND CONSTRUCTION
2. CONTRACTOR SHALL SIZE THE ABSORPTION FIELD IN ACCORDANCE WITH ALL RELEVANT REGULATION AND ORDINANCES
3. FOR REDUNDANCY CONTRACTOR SHALL INSTALL TWO ADEQUATELY SIZED ABSORPTION FIELDS SEPARATED BY DIVERTER VALVE
4. CONTRACTOR SHALL PROTECT ABSORPTION FIELD WITH BOLLARDS
5. EXCAVATE TRENCHES TO PROPER WIDTH, AND PROPER DEPTH AS REQUIRED BY STATE AND LOCAL CODES
6. SMOOTH IRREGULARITIES IN THE EXCAVATION. A LEVEL, FLAT SURFACE IS NECESSARY
7. ASSEMBLE BIODIFFUSER LEACHING CHAMBERS AND UNIVERSAL ENDPLATES TOGETHER IN TRENCH(ES)
8. THE UNIVERSAL END PLATE IS CONSTRUCTED WITH TABS SO THAT THE EARTH FILL ON ONE SIDE WILL HOLD IT SECURELY IN PLACE AGAINST THE BIODIFFUSER
9. PUNCH OUT PIPE HOLE OPENINGS IN THE END PLATES AS NEEDED AND CONNECT INLET PIPES
10. FILL SIDEWALL AREA TO TOP OF CHAMBERS WITH NATIVE SOIL (COARSE SAND OR FINE GRAVEL MAY ALSO BE USED. NO HEAVY CLAY, SILT, OR DEBRIS SHALL BE INCLUDED)
11. "WALK IN" FILL TO COMPACT SOIL ALONG SIDES OF BIODIFFUSER
12. COVER BIODIFFUSER LEACHING CHAMBERS TO A MINIMUM OF 12" AFTER CONSOLIDATION
13. USE TRAFFIC RATED CLEANOUT COVER FOR ALL CLEANOUTS ADJACENT TO LEACH FIELD
14. CONTRACTOR SHALL COORDINATE WITH LOCAL OSSF PERMITTING AUTHORITY TO ACQUIRE ALL NECESSARY AUTHORIZATION OF OSSF SYSTEM
15. CONTRACTOR SHALL ADHERE TO RECOMMENDATIONS FROM SITE EVALUATION

## A1 TYPICAL TRENCH AND ABSORPTIVE DRAINFIELD CROSS-SECTION
NOT TO SCALE

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SPENSER J. HARVEY 138737 LICENSED PROFESSIONAL ENGINEER
10/31/2023

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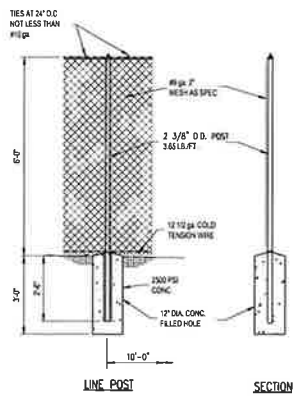
PROJECT NO.
6119.21 - WEST
45015.22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| 1 | 10/31/2023 | Issue for Proposal |

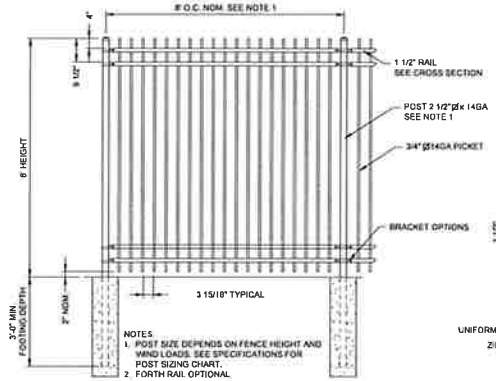
Absorptive Drainfield Details

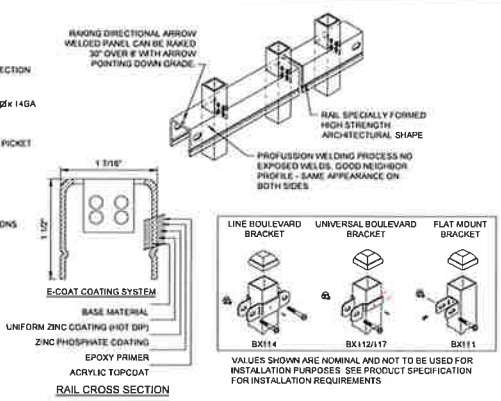
C-503

FILE NAME: A:\2021\6119.21\03_DSGN\01_DWG\05D_CR\LIC-503-6119-21.dwg LAYOUT NAME: C-503 PRINTED: Tuesday, October 31, 2023 - 10:23am USER: SHarvey

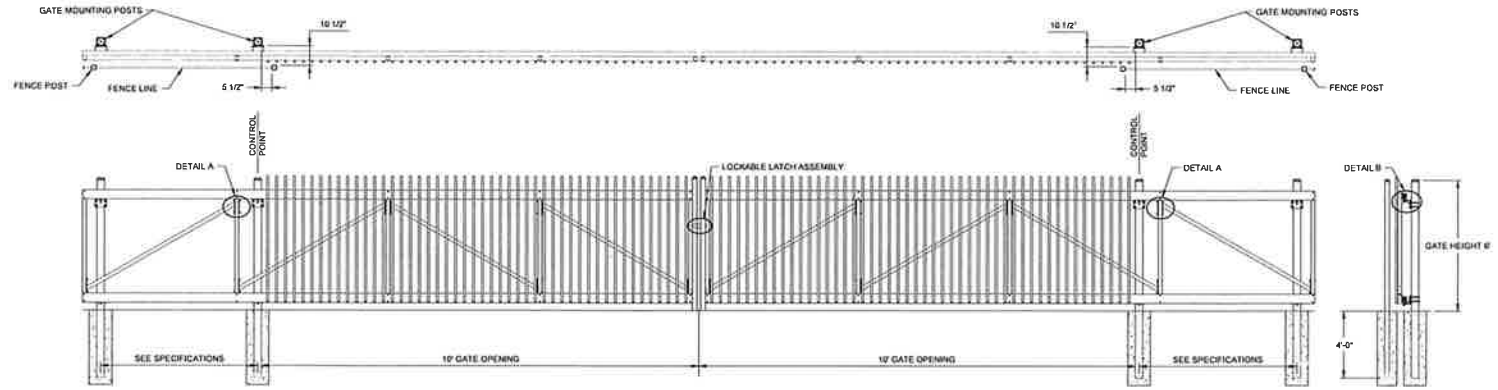


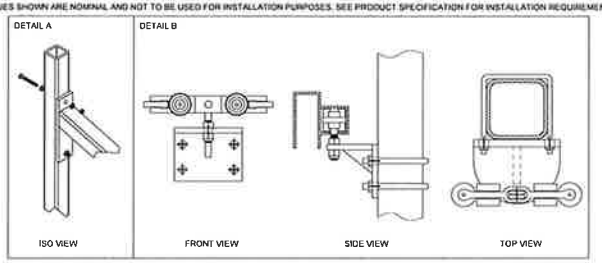

C1 CHAIN LINK FENCE DETAILS
NTS




C2 WELDED STEEL PANEL FENCE SECTION AND DETAILS
NTS




A1 CANTILEVER GATE SECTION AND DETAILS
NTS

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SPENCER J. HARVEY 138737 LICENSED
10/31/2023

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Midland, TX

PROJECT NO
611921 - WEST
40016.22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| 1 | 10/31/2023 | Issue for Proposal |

Fencing Details

C-504

FILE NAME: A:\2021\611921.21\03_DESIGN\01_DWG\05_CIVIL\C-504411921.dwg LAYOUT NAME: C-504 PRINTED: Tuesday, October 31, 2023 - 10:21am USER: SHarvey

| POINT # | NORTHING | EASTING | DESCRIPTION |
|---|---|---|---|
| 101 | 10680511.78 | 1730213.02 | RET WALL |
| 102 | 10680527.25 | 1730201.41 | RET WALL |
| 103 | 10680533.54 | 1730199.79 | RET WALL |
| 104 | 10680530.13 | 1730186.52 | RET WALL |
| 105 | 10680515.81 | 1730182.80 | RET WALL |
| 106 | 10680522.52 | 1730158.12 | RET WALL |
| 107 | 10680508.53 | 1730154.29 | RET WALL |
| 108 | 10680515.24 | 1730129.81 | RET WALL |
| 109 | 10680501.26 | 1730125.97 | RET WALL |
| 110 | 10680507.97 | 1730101.50 | RET WALL |
| 111 | 10680493.98 | 1730097.66 | RET WALL |
| 112 | 10680500.69 | 1730073.18 | RET WALL |
| 113 | 10680488.70 | 1730069.35 | RET WALL |
| 114 | 10680493.41 | 1730044.87 | RET WALL |
| 115 | 10680479.43 | 1730041.04 | RET WALL |
| 116 | 10680486.14 | 1730016.56 | RET WALL |
| 117 | 10680472.15 | 1730012.73 | RET WALL |
| 118 | 10680482.18 | 1729976.14 | RET WALL |
| 119 | 10680478.70 | 1729962.82 | RET WALL |
| 120 | 10680466.87 | 1729965.71 | RET WALL |
| 121 | 10680447.52 | 1729962.89 | RET WALL |
| 122 | 10680435.91 | 1729947.53 | RET WALL |
| 123 | 10680430.15 | 1729925.19 | ASPHALT |
| 124 | 10680430.87 | 1729924.99 | RET WALL |
| 125 | 10680430.15 | 1729921.78 | CONC CURB |
| 126 | 10680438.35 | 1729919.41 | RADIUS PNT. |
| 127 | 10680438.98 | 1729919.21 | CONC CURB |
| 128 | 10680444.44 | 1729908.28 | CONC CURB |
| 129 | 10680448.41 | 1729927.68 | RADIUS PNT. |
| 130 | 10680468.78 | 1729922.59 | CONC CURB |
| 131 | 10680473.80 | 1729942.21 | CONC CURB |
| 132 | 10680478.82 | 1729961.73 | CONC CURB |
| 133 | 10680464.36 | 1730217.57 | RET WALL |
| 134 | 10680452.32 | 1730220.66 | RET WALL |
| 135 | 10680448.81 | 1730206.98 | RET WALL |
| 136 | 10680458.84 | 1730197.24 | RET WALL |

| POINT # | NORTHING | EASTING | DESCRIPTION |
|---|---|---|---|
| 137 | 10680441.16 | 1730179.03 | RET WALL |
| 138 | 10680451.57 | 1730168.03 | RET WALL |
| 139 | 10680433.89 | 1730150.72 | RET WALL |
| 140 | 10680444.29 | 1730140.82 | RET WALL |
| 141 | 10680426.61 | 1730122.41 | RET WALL |
| 142 | 10680437.01 | 1730112.30 | RET WALL |
| 143 | 10680419.33 | 1730094.10 | RET WALL |
| 144 | 10680429.74 | 1730083.99 | RET WALL |
| 145 | 10680412.06 | 1730065.78 | RET WALL |
| 146 | 10680422.46 | 1730055.68 | RET WALL |
| 147 | 10680404.78 | 1730037.47 | RET WALL |
| 148 | 10680415.18 | 1730027.37 | RET WALL |
| 149 | 10680398.13 | 1730009.81 | RET WALL |
| 150 | 10680391.75 | 1729984.97 | RET WALL |
| 151 | 10680381.21 | 1729984.25 | CONC CURB |
| 152 | 10680403.78 | 1729981.68 | RET WALL |
| 153 | 10680419.24 | 1729970.26 | RET WALL |
| 154 | 10680421.95 | 1729951.12 | RET WALL |
| 155 | 10680416.22 | 1729926.78 | ASPHALT |
| 156 | 10680415.42 | 1729928.95 | RET WALL |
| 157 | 10680414.59 | 1729925.77 | CONC CURB |
| 158 | 10680405.39 | 1729928.14 | RADIUS PNT. |
| 159 | 10680402.02 | 1729918.94 | CONC CURB |
| 160 | 10680387.00 | 1729923.06 | CONC CURB |
| 161 | 10680383.10 | 1729946.79 | RADIUS PNT. |
| 162 | 10680369.37 | 1729952.88 | CONC CURB |
| 163 | 10680373.05 | 1729967.20 | CONC CURB |
| 164 | 10680382.25 | 1729964.84 | RADIUS PNT. |
| 165 | 10680377.90 | 1729973.28 | CONC CURB |
| 166 | 10680368.22 | 1729977.57 | CONC CURB |
| 167 | 10680381.86 | 1729986.01 | RADIUS PNT. |
| 168 | 10680391.06 | 1729983.65 | CONC CURB |
| 169 | 10680429.28 | 1730354.15 | CONCRETE |
| 170 | 10680535.78 | 1730326.71 | RADIUS PNT. |
| 171 | 10680427.07 | 1730309.91 | CONCRETE |
| 172 | 10680431.42 | 1730281.79 | CONCRETE |

| POINT # | NORTHING | EASTING | DESCRIPTION |
|---|---|---|---|
| 173 | 10680342.47 | 1730268.04 | RADIUS PNT. |
| 174 | 10680429.64 | 1730245.64 | CONCRETE |
| 175 | 10680378.47 | 1730058.97 | CONCRETE |
| 176 | 10680332.65 | 1729809.46 | CONCRETE |
| 177 | 10680391.03 | 1729800.66 | RADIUS PNT. |
| 178 | 10680354.16 | 1729871.60 | CONCRETE |
| 179 | 10680405.56 | 1729858.39 | CONCRETE |
| 180 | 10680441.13 | 1729849.25 | CONCRETE |
| 181 | 10680448.60 | 1729878.30 | RADIUS PNT. |
| 182 | 10680477.80 | 1729870.84 | CONCRETE |
| 183 | 10680524.74 | 1730054.91 | CONCRETE |
| 184 | 10680575.72 | 1730252.36 | CONCRETE |
| 185 | 10680551.51 | 1730258.58 | RADIUS PNT. |
| 186 | 10680569.54 | 1730275.80 | CONCRETE |
| 187 | 10680548.42 | 1730297.60 | CONCRETE |
| 188 | 10680577.27 | 1730325.60 | RADIUS PNT. |
| 189 | 10680538.53 | 1730335.55 | CONCRETE |
| 190 | 10680356.47 | 1729986.15 | CONCRETE |
| 191 | 10680327.79 | 1729994.95 | CONCRETE |
| 192 | 10680349.79 | 1730066.65 | CONCRETE |
| 193 | 10680371.78 | 1730136.36 | CONCRETE |
| 194 | 10680366.31 | 1730118.21 | CONCRETE |
| 195 | 10680398.85 | 1730129.75 | CONCRETE |
| 196 | 10680453.23 | 1730447.10 | CONCRETE |
| 197 | 10680424.18 | 1730454.67 | RADIUS PNT. |
| 198 | 10680431.80 | 1730483.74 | CONCRETE |
| 199 | 10680508.82 | 1730344.37 | RADIUS PNT. |
| 200 | 10680533.18 | 1730403.13 | RADIUS PNT. |
| 201 | 10680460.85 | 1730356.83 | RADIUS PNT. |
| 202 | 10680570.10 | 1730438.13 | CONCRETE |
| 203 | 10680530.77 | 1730403.75 | RADIUS PNT. |
| 204 | 10680453.15 | 1730468.27 | CONCRETE |
| 205 | 10680472.18 | 1730418.85 | CONC CURB |
| 206 | 10680470.73 | 1730418.22 | RADIUS PNT. |
| 207 | 10680471.10 | 1730420.68 | CONC CURB |
| 208 | 10680469.24 | 1730421.16 | CONC CURB |

| POINT # | NORTHING | EASTING | DESCRIPTION |
|---|---|---|---|
| 209 | 10680468.87 | 1730419.70 | RADIUS PNT. |
| 210 | 10680467.42 | 1730420.08 | CONC CURB |
| 211 | 10680596.71 | 1730441.58 | CONCRETE |
| 212 | 10680549.29 | 1730412.52 | RADIUS PNT. |
| 213 | 10680560.23 | 1730419.88 | CONCRETE |
| 214 | 10680514.73 | 1730343.61 | BUILDING |
| 215 | 10680524.78 | 1730382.58 | BUILDING |
| 216 | 10680496.38 | 1730397.83 | BUILDING |
| 217 | 10680456.34 | 1730356.65 | BUILDING |
| 218 | 10680509.06 | 1730232.17 | RET WALL |
| 219 | 10680514.61 | 1730254.51 | ASPHALT |
| 220 | 10680515.61 | 1730254.30 | RET WALL |
| 221 | 10680518.44 | 1730257.51 | CONC CURB |
| 222 | 10680525.64 | 1730255.15 | RADIUS PNT. |
| 223 | 10680528.00 | 1730264.35 | CONC CURB |
| 224 | 10680529.72 | 1730263.91 | CONC CURB |
| 225 | 10680524.74 | 1730244.54 | RADIUS PNT. |
| 226 | 10680544.11 | 1730239.56 | CONC CURB |
| 227 | 10680534.07 | 1730200.51 | CONC CURB |
| 228 | 10680483.51 | 1730220.29 | RET WALL |
| 229 | 10680495.12 | 1730235.75 | RET WALL |
| 230 | 10680500.87 | 1730258.09 | ASPHALT |
| 231 | 10680500.06 | 1730258.30 | RET WALL |
| 232 | 10680500.68 | 1730261.51 | CONC CURB |
| 233 | 10680491.66 | 1730263.87 | RADIUS PNT. |
| 234 | 10680494.05 | 1730273.07 | CONC CURB |
| 235 | 10680486.59 | 1730274.98 | CONC CURB |
| 236 | 10680481.61 | 1730255.62 | RADIUS PNT. |
| 237 | 10680492.24 | 1730260.50 | CONC CURB |
| 238 | 10680452.21 | 1730221.55 | CONC CURB |
| 239 | 10680550.22 | 1730299.62 | LIGHT POLE |
| 240 | 10680554.48 | 1730159.58 | LIGHT POLE |
| 241 | 10680518.63 | 1730024.08 | LIGHT POLE |
| 242 | 10680350.84 | 1729976.33 | LIGHT POLE |
| 243 | 10680401.13 | 1730144.78 | LIGHT POLE |
| 244 | 10680434.18 | 1730383.26 | LIGHT POLE |

| POINT # | NORTHING | EASTING | DESCRIPTION |
|---|---|---|---|
| 245 | 10680413.02 | 1730180.97 | CONCRETE |
| 246 | 10680280.87 | 1729859.05 | FENCE |
| 247 | 10680324.87 | 1730001.83 | FENCE |
| 248 | 10680368.47 | 1730144.60 | FENCE |
| 249 | 10680298.85 | 1730254.90 | FENCE |
| 250 | 10680431.24 | 1730365.20 | FENCE |
| 251 | 10680512.17 | 1730333.44 | FENCE |
| 252 | 10680546.02 | 1730324.52 | FENCE |
| 253 | 10680572.22 | 1730426.80 | FENCE |
| 254 | 10680647.12 | 1730397.26 | FENCE |
| 255 | 10680800.88 | 1730368.25 | FENCE |
| 256 | 10680588.68 | 1730403.15 | POND |
| 257 | 10680560.74 | 1730294.52 | POND |
| 258 | 10680585.18 | 1730269.07 | POND |
| 259 | 10680529.97 | 1730054.30 | POND |
| 260 | 10680474.77 | 1729839.52 | POND |
| 261 | 10680542.84 | 1729823.59 | POND |
| 262 | 10680566.75 | 1729918.47 | POND |
| 263 | 10680589.99 | 1729911.04 | POND |
| 264 | 10680649.46 | 1730141.73 | POND |
| 265 | 10680708.84 | 1730372.42 | POND |
| 266 | 10680597.30 | 1730388.55 | POND |
| 267 | 10680574.03 | 1730296.01 | POND |
| 268 | 10680593.83 | 1730277.38 | POND |
| 269 | 10680598.80 | 1730266.06 | POND |
| 270 | 10680544.26 | 1730038.38 | POND |
| 271 | 10680504.03 | 1729857.74 | POND |
| 272 | 10680526.14 | 1729852.39 | POND |
| 273 | 10680546.27 | 1729921.76 | POND |
| 274 | 10680571.61 | 1729837.10 | POND |
| 275 | 10680575.43 | 1729836.18 | POND |
| 276 | 10680614.15 | 1730069.62 | POND |
| 277 | 10680652.88 | 1730203.06 | POND |
| 278 | 10680676.33 | 1730294.00 | POND |
| 279 | 10680664.32 | 1730363.77 | POND |
| 281 | 10680453.31 | 1730352.77 | BOLLARD |

| POINT # | NORTHING | EASTING | DESCRIPTION |
|---|---|---|---|
| 291 | 10680525.35 | 1730384.73 | CONC CURB |
| 292 | 10680468.21 | 1730403.45 | CONC CURB |
| 297 | 10680459.59 | 1730361.19 | CONC CURB |
| 298 | 10680451.76 | 1730358.30 | CONC CURB |
| 299 | 10680454.97 | 1730349.55 | CONC CURB |
| 300 | 10680473.16 | 1730343.98 | CONC CURB |
| 301 | 10680474.65 | 1730343.60 | CONC CURB |
| 302 | 10680483.38 | 1730338.79 | CONC CURB |
| 303 | 10680507.46 | 1730335.17 | CONC CURB |
| 304 | 10680518.02 | 1730342.00 | CONC CURB |
| 305 | 10680528.83 | 1730372.38 | CONC CURB |
| 306 | 10680534.64 | 1730402.76 | CONC CURB |
| 307 | 10680533.56 | 1730404.58 | CONC CURB |
| 308 | 10680531.14 | 1730405.21 | CONC CURB |
| 309 | 10680529.31 | 1730404.13 | CONC CURB |
| 310 | 10680523.66 | 1730362.04 | BOLLARD |
| 311 | 10680520.13 | 1730362.90 | BOLLARD |
| 312 | 10680528.84 | 1730382.15 | BOLLARD |
| 313 | 10680525.31 | 1730383.06 | BOLLARD |
| 314 | 10680474.23 | 1730353.18 | BOLLARD |
| 315 | 10680456.26 | 1730357.29 | BOLLARD |
| 316 | 10680452.08 | 1730356.58 | BOLLARD |

FOR CONTROL POINT LOCATIONS, SEE SHEET C-101.

Parkhill

SPENCER J. HARVEY 138737 LICENSED 10/31/2023

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Midland, TX

PROJECT NO.
6119.21 - WEST
45015.22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

West CCS
Control Point Tables

C-601

FILE NAME = A:\2021\6119.21\03_DSGN\01_DWG\056_CIVIL\C-101-6119-21.dwg LAYOUT NAME = C-601 PRINTED Tuesday, October 31, 2023 - 10:22am USER: Shurley

CONTROL POINT TABLE

| POINT # | NORTHING | EASTING | DESCRIPTION |
|---|---|---|---|
| 101 | 6739741.19 | 855227.71 | RET WALL |
| 102 | 6739729.63 | 855212.00 | RET WALL |
| 103 | 6739728.35 | 855205.67 | RET WALL |
| 104 | 6739715.01 | 855208.79 | RET WALL |
| 105 | 6739710.77 | 855223.02 | RET WALL |
| 106 | 6739686.45 | 855215.78 | RET WALL |
| 107 | 6739682.31 | 855228.88 | RET WALL |
| 108 | 6739657.88 | 855222.44 | RET WALL |
| 109 | 6739652.85 | 855236.34 | RET WALL |
| 110 | 6739629.52 | 855229.10 | RET WALL |
| 111 | 6739625.38 | 855243.00 | RET WALL |
| 112 | 6739601.06 | 855235.76 | RET WALL |
| 113 | 6739596.92 | 855249.66 | RET WALL |
| 114 | 6739572.59 | 855242.42 | RET WALL |
| 115 | 6739568.45 | 855256.32 | RET WALL |
| 116 | 6739544.13 | 855249.07 | RET WALL |
| 117 | 6739539.99 | 855262.97 | RET WALL |
| 118 | 6739503.83 | 855252.15 | RET WALL |
| 119 | 6739499.04 | 855255.33 | RET WALL |
| 120 | 6739492.67 | 855267.43 | RET WALL |
| 121 | 6739489.74 | 855280.51 | RET WALL |
| 122 | 6739474.02 | 855297.78 | RET WALL |
| 123 | 6738451.56 | 855303.04 | ASPHALT |
| 124 | 6738451.38 | 855302.23 | RET WALL |
| 125 | 6739448.15 | 855302.09 | CONC CURB |
| 126 | 6739445.93 | 855293.74 | RADIUS PNT. |
| 127 | 6739436.73 | 855295.80 | CONC CURB |
| 128 | 6739434.95 | 855288.41 | CONC CURB |
| 129 | 6739434.45 | 855283.85 | RADIUS PNT. |
| 130 | 6739449.90 | 855264.38 | CONC CURB |
| 131 | 6739468.53 | 855259.79 | CONC CURB |
| 132 | 6739469.15 | 855255.19 | CONC CURB |
| 133 | 6739744.62 | 855275.22 | RET WALL |
| 134 | 6739747.45 | 855287.32 | RET WALL |
| 135 | 6739733.70 | 855280.54 | RET WALL |
| 136 | 6739724.17 | 855280.29 | RET WALL |
| 137 | 6739705.58 | 855297.57 | RET WALL |
| 138 | 6739685.71 | 855286.95 | RET WALL |
| 139 | 6739677.12 | 855304.23 | RET WALL |
| 140 | 6739667.24 | 855293.61 | RET WALL |
| 141 | 6739648.68 | 855310.89 | RET WALL |
| 142 | 6739638.78 | 855300.27 | RET WALL |
| 143 | 6739620.18 | 855317.55 | RET WALL |
| 144 | 6739610.32 | 855306.93 | RET WALL |
| 145 | 6739591.73 | 855324.21 | RET WALL |
| 146 | 6739581.85 | 855313.59 | RET WALL |
| 147 | 6739563.27 | 855330.87 | RET WALL |
| 148 | 6739553.39 | 855320.24 | RET WALL |
| 149 | 6739535.48 | 855336.91 | RET WALL |
| 150 | 6739510.49 | 855342.76 | RET WALL |

CONTROL POINT TABLE

| POINT # | NORTHING | EASTING | DESCRIPTION |
|---|---|---|---|
| 151 | 6739509.76 | 855343.27 | CONC CURB |
| 152 | 6739507.66 | 855330.85 | RET WALL |
| 153 | 6739496.39 | 855314.94 | RET WALL |
| 154 | 6739477.30 | 855311.81 | RET WALL |
| 155 | 6739454.84 | 855317.96 | ASPHALT |
| 156 | 6739455.03 | 855317.87 | RET WALL |
| 157 | 6739451.81 | 855318.83 | CONC CURB |
| 158 | 6739453.97 | 855027.88 | RADIUS PNT. |
| 159 | 6739444.72 | 855330.04 | CONC CURB |
| 160 | 6739448.48 | 855346.15 | CONC CURB |
| 161 | 6739472.35 | 855340.57 | RADIUS PNT. |
| 162 | 6739477.93 | 855364.42 | CONC CURB |
| 163 | 6739492.22 | 855361.08 | CONC CURB |
| 164 | 6739490.16 | 855351.81 | RADIUS PNT. |
| 165 | 6739498.60 | 855358.35 | CONC CURB |
| 166 | 6739502.97 | 855348.12 | CONC CURB |
| 167 | 6739511.32 | 855352.66 | RADIUS PNT. |
| 168 | 6739509.16 | 855343.41 | CONC CURB |
| 169 | 6739980.41 | 855313.29 | CONCRETE |
| 170 | 6739955.28 | 855306.19 | RADIUS PNT. |
| 171 | 6739836.12 | 855314.51 | CONCRETE |
| 172 | 6739808.10 | 855309.56 | CONCRETE |
| 173 | 6739782.43 | 855398.18 | RADIUS PNT. |
| 174 | 6739771.93 | 855310.55 | CONCRETE |
| 175 | 6739564.18 | 855357.64 | CONCRETE |
| 176 | 6739433.72 | 855399.90 | CONCRETE |
| 177 | 6739425.54 | 855371.03 | RADIUS PNT. |
| 178 | 6739386.33 | 855377.88 | CONCRETE |
| 179 | 6739384.24 | 855326.18 | CONCRETE |
| 180 | 6739375.58 | 855290.42 | CONCRETE |
| 181 | 6738405.09 | 855283.59 | RADIUS PNT. |
| 182 | 6738398.26 | 855254.38 | CONCRETE |
| 183 | 6739582.42 | 855211.30 | CONCRETE |
| 184 | 6739781.83 | 855164.65 | CONCRETE |
| 185 | 6739789.09 | 855183.49 | RADIUS PNT. |
| 186 | 6739805.23 | 855171.34 | CONCRETE |
| 187 | 6739826.75 | 855182.93 | CONCRETE |
| 188 | 6739964.19 | 855203.64 | CONCRETE |
| 190 | 6739510.91 | 855378.05 | CONCRETE |
| 191 | 6739519.08 | 855408.91 | CONCRETE |
| 192 | 6739591.24 | 855386.48 | CONCRETE |
| 193 | 6739603.41 | 855368.05 | CONCRETE |
| 194 | 6739543.17 | 855368.91 | CONCRETE |
| 195 | 6739655.41 | 855337.80 | CONCRETE |
| 196 | 6739973.84 | 855291.35 | CONCRETE |
| 197 | 6739980.79 | 855320.55 | RADIUS PNT. |
| 198 | 6740010.01 | 855313.77 | CONCRETE |
| 199 | 6739972.36 | 855232.53 | RADIUS PNT. |
| 200 | 6739960.81 | 855326.38 | POIND |
| 201 | 6739883.87 | 855281.88 | RADIUS PNT. |

CONTROL POINT TABLE

| POINT # | NORTHING | EASTING | DESCRIPTION |
|---|---|---|---|
| 202 | 6739887.43 | 855174.31 | CONCRETE |
| 203 | 6739832.20 | 855212.88 | RADIUS PNT. |
| 204 | 6739966.84 | 855375.78 | POIND |
| 205 | 6739971.82 | 855374.67 | POIND |
| 206 | 6739946.02 | 855271.78 | CONC CURB |
| 207 | 6739954.52 | 855402.19 | POIND |
| 208 | 6739953.40 | 855387.32 | POIND |
| 209 | 6739946.36 | 855273.25 | RADIUS PNT. |
| 210 | 6739802.66 | 855436.93 | POIND |
| 211 | 6739947.82 | 855272.90 | CONC CURB |
| 212 | 6739850.80 | 855471.66 | POIND |
| 213 | 6739849.26 | 855274.77 | CONC CURB |
| 214 | 6739946.80 | 855275.11 | RADIUS PNT. |
| 215 | 6739947.14 | 855276.57 | CONC CURB |
| 216 | 6739871.46 | 855147.76 | CONCRETE |
| 217 | 6739842.24 | 855154.57 | RADIUS PNT. |
| 218 | 6739949.07 | 855183.78 | CONCRETE |
| 219 | 6739871.72 | 855227.81 | BUILDING |
| 220 | 6739910.81 | 855218.41 | BUILDING |
| 221 | 6739924.88 | 855277.12 | BUILDING |
| 222 | 6739885.49 | 855280.31 | BUILDING |
| 223 | 6739760.19 | 855230.85 | RET WALL |
| 224 | 6739782.85 | 855225.58 | ASPHALT |
| 225 | 6739782.46 | 855224.78 | RET WALL |
| 226 | 6739785.88 | 855224.03 | CONC CURB |
| 227 | 6739783.52 | 855214.78 | RADIUS PNT. |
| 228 | 6739782.77 | 855212.61 | CONC CURB |
| 229 | 6739782.37 | 855210.89 | CONC CURB |
| 230 | 6739772.88 | 855215.44 | RADIUS PNT. |
| 231 | 6739768.34 | 855195.97 | CONC CURB |
| 232 | 6739729.08 | 855205.15 | CONC CURB |
| 233 | 6739747.75 | 855256.14 | RET WALL |
| 234 | 6739763.47 | 855244.96 | RET WALL |
| 235 | 6739785.93 | 855239.61 | ASPHALT |
| 236 | 6739788.11 | 855240.42 | RET WALL |
| 237 | 6739788.34 | 855239.66 | CONC CURB |
| 238 | 6739791.51 | 855248.81 | RADIUS PNT. |
| 239 | 6739800.78 | 855246.75 | CONC CURB |
| 240 | 6739802.61 | 855254.24 | CONC CURB |
| 241 | 6739783.03 | 855256.80 | RADIUS PNT. |
| 242 | 6739767.59 | 855278.27 | CONC CURB |
| 243 | 6739748.34 | 855287.46 | CONC CURB |
| 244 | 6739828.52 | 855181.16 | LIGHT POLE |
| 245 | 6739888.71 | 855183.88 | LIGHT POLE |
| 246 | 6739879.32 | 855528.10 | FENCE |
| 247 | 6739754.69 | 855465.38 | FENCE |
| 248 | 6740030.66 | 855402.68 | FENCE |
| 249 | 6739552.39 | 855215.75 | LIGHT POLE |
| 250 | 6739500.96 | 855383.46 | LIGHT POLE |
| 251 | 6739670.47 | 855338.85 | LIGHT POLE |

CONTROL POINT TABLE

| POINT # | NORTHING | EASTING | DESCRIPTION |
|---|---|---|---|
| 252 | 6739909.61 | 855309.00 | LIGHT POLE |
| 253 | 6739706.90 | 855225.78 | CONCRETE |
| 256 | 6739655.84 | 855227.39 | POND |
| 257 | 6739649.68 | 855468.79 | POND |
| 258 | 6739628.12 | 855453.23 | POND |
| 259 | 6739617.03 | 855404.48 | POND |
| 260 | 6739642.74 | 855350.52 | POND |
| 261 | 6739649.39 | 855376.77 | POND |
| 262 | 6739645.67 | 855449.24 | POND |
| 263 | 6739638.02 | 855419.99 | POND |
| 264 | 6739768.92 | 855365.38 | POND |
| 265 | 6739790.88 | 855385.25 | POND |
| 266 | 6739797.53 | 855414.51 | POND |
| 267 | 6739801.54 | 855432.05 | POND |
| 270 | 6739891.49 | 855311.55 | FENCE |
| 271 | 6739881.50 | 855229.85 | FENCE |
| 272 | 6739853.32 | 855195.91 | FENCE |
| 273 | 6739855.88 | 855171.04 | FENCE |
| 281 | 6739879.54 | 855289.21 | BOLLARD |
| 291 | 6739917.06 | 855217.98 | CONC CURB |
| 292 | 6739930.54 | 855275.42 | CONC CURB |
| 297 | 6739918.59 | 855283.74 | CONC CURB |
| 298 | 6739866.04 | 855260.91 | CONC CURB |
| 299 | 6739876.38 | 855287.48 | CONC CURB |
| 300 | 6739871.18 | 855288.18 | CONC CURB |
| 301 | 6739870.84 | 855287.68 | CONC CURB |
| 302 | 6739868.44 | 855248.65 | CONC CURB |
| 303 | 6739863.13 | 855234.70 | CONC CURB |
| 304 | 6739870.21 | 855223.28 | CONC CURB |
| 305 | 6739900.75 | 855216.14 | CONC CURB |
| 306 | 6739931.28 | 855208.89 | CONC CURB |
| 307 | 6739933.08 | 855210.11 | CONC CURB |
| 308 | 6739933.66 | 855212.54 | CONC CURB |
| 309 | 6739932.55 | 855214.34 | CONC CURB |
| 310 | 6739890.35 | 855218.08 | BOLLARD |
| 311 | 6739891.18 | 855222.63 | BOLLARD |
| 312 | 6739910.56 | 855214.34 | BOLLARD |
| 313 | 6739911.38 | 855217.88 | BOLLARD |
| 314 | 6739880.41 | 855268.30 | BOLLARD |
| 315 | 6739884.17 | 855284.36 | BOLLARD |
| 316 | 6739883.32 | 855290.51 | BOLLARD |
| 324 | 6739931.63 | 855210.45 | RADIUS PNT. |
| 325 | 6739905.01 | 855291.58 | CONCRETE |

FOR CONTROL POINT LOCATIONS, SEE SHEET C-106.

Parkhill

SPENCER J. HARVEY 138737 LICENSED 10/31/2023

Parkhill.com

Citizen Collection Stations

City Of Midland

MIDLAND Feel the Energy!

CLIENT
City of Midland, Texas

300 N. Loraine
Midland, TX

PROJECT NO.
5110.21 - WEST
40015.22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

North CCS Control Point Tables

C-602

FILE NAME: A:\2022\40015.22\03_DSGN\01_DWG\050_CIVIL\C-106-40015-22.dwg LAYOUT NAME: C-602 PRINTED: Tuesday, October 31, 2023 - 10:23am USER: SHarvey

## GENERAL REQUIREMENTS

A REFER TO SPECIFICATIONS FOR SPECIFIC REQUIREMENTS FOR MATERIALS, PRODUCTS, HANDLING, AND INSTALLATION
B THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE UNTIL THE CONSTRUCTION OF THE STRUCTURE REACHES ITS FINAL CONDITION, AND ALL DIAPHRAGMS, BRACES, AND/OR SHEAR WALLS ARE INSTALLED
C THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND REMOVAL OF TEMPORARY BRACING AND CONSTRUCTION SUPPORTS FOR NEW AND EXISTING STRUCTURES, AS NECESSARY TO COMPLETE THE PROJECT. NO PORTION OF THE PROJECT WHILE UNDER CONSTRUCTION IS INTENDED TO BE STABLE IN THE ABSENCE OF THE CONTRACTOR'S TEMPORARY SUPPORTS AND BRACES. CONTRACTOR SHALL RETAIN A STRUCTURAL ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED TO DESIGN TEMPORARY BRACING AND CONSTRUCTION SUPPORTS.
D APPLY DETAILS, SECTIONS, AND NOTES ON THE DRAWINGS WHERE CONDITIONS ARE SIMILAR TO THOSE INDICATED ON DETAILS, TITLES, OR NOTES.
E ONLY USE DIMENSIONS INDICATED ON THE DRAWINGS. DO NOT SCALE DRAWINGS.
F THE CONTRACTOR SHALL VERIFY ALL OPENING SIZES AND LOCATIONS WITH OTHER DISCIPLINES. THE DRAWINGS DO NOT SHOW ALL OPENINGS REQUIRED. ADDITIONAL OPENINGS, BLOCKOUTS, AND SLEEVES MAY BE REQUIRED BY OTHER DISCIPLINES AND SHALL BE CONSTRUCTED USING THE TYPICAL DETAILS AND/OR THE CRITERIA INDICATED ON THE DRAWINGS. OPENINGS REQUIRED BUT NOT SHOWN ON THE STRUCTURAL DRAWINGS MUST BE APPROVED BY THE STRUCTURAL ENGINEER.
G REFER TO ARCHITECTURAL, CIVIL, MEP, AND VERTICAL TRANSPORTATION CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION RELATING TO THE COORDINATION OF STRUCTURAL COMPONENTS INCLUDING, BUT NOT LIMITED TO
  a CIVIL
    1 SITING OF BUILDING GRID LINES WITH RESPECT TO CITY BENCHMARKS
    2 SITE PREPARATION
    3 BACKFILLING MATERIALS AND REQUIREMENTS
    4 PAVING AND SITE ELEMENTS OUTSIDE OF BUILDING ENVELOPE
    5 NEW AND EXISTING UTILITIES
  b ARCHITECTURAL
    1 PLAN DIMENSIONS AND PROJECT DATUM
    2 SLAB EDGE DIMENSIONS
    3 FINISH ELEVATION
    4 WATERPROOFING AND DAMP-PROOFING DETAILS
    5 RAMP GEOMETRY, PITS, SLAB SLOPES, AND DEPRESSIONS
    6 EMBEDMENTS, INSERTS, BLOCKOUTS, ETC.
    7 EXACT OPENING SIZES FOR PIPES, DUCT, ETC.
    8 CONCRETE FINISHES AND TOPPING SLABS
    9 CONCRETE CURBS AND HOUSEKEEPING PADS
    10 INTERIOR NON-STRUCTURAL MASONRY PARTITIONS
  c FIRE RATINGS/MEP
    1 PIPE AND DUCT SIZES FOR OPENINGS AND SLEEVE COORDINATION
    2 FLOOR DRAINS
    3 UNDERFLOOR AND PERIMETER DRAINAGE SYSTEMS
    4 EQUIPMENT CURBS
    5 CONDUITS AND EMBEDMENTS IN WALLS AND SLABS
H STRUCTURAL COMPONENTS ARE NOT DESIGNED FOR VIBRATING EQUIPMENT. MOUNT VIBRATING EQUIPMENT ON VIBRATING ISOLATORS.

## CODES

ALL FABRICATION, ERECTION, AND DESIGN OF STRUCTURAL MEMBERS SHALL MEET THE MINIMUM STANDARDS OF THE FOLLOWING CODES
A INTERNATIONAL BUILDING CODE (IBC) 2018
B AMERICAN CONCRETE INSTITUTE (ACI) ACI 318-14 AND OTHER APPLICABLE ACI STANDARDS
C AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) STEEL CONSTRUCTION MANUAL - SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS - AISI/AISC 360 - 16
D AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) - STANDARD 7-16
E AMERICAN WELDING SOCIETY (AWS)
F CONCRETE REINFORCING STEEL INSTITUTE ( CRSI)
G ASTM SPECIFICATIONS
H AMERICAN IRON AND STEEL INSTITUTE (AISI)

## MATERIAL PROPERTIES

| | |
|---|---|
| STEEL | |
| WIDE FLANGE MEMBERS | ASTM A992 - GRADE 50 |
| STEEL PIPE | ASTM A500 GRADE B - 50 KSI |
| STEEL TUBE | ASTM A500 GRADE B - 50 KSI |
| MISC STEEL | ASTM A36 - 36 KSI |
| CONCRETE | |
| SLABS | 4000 PSI |
| GRADE BEAMS & FOOTINGS | 4000 PSI |
| RETAINING WALLS | 4000 PSI |
| REINFORCING | |
| TYPICAL | ASTM A-615 - GRADE 60 |
| LOW ALLOY/WELDABLE | ASTM A-706 - GRADE 60 |
| ANCHOR RODS | ASTM F-1554 - GRADE 36 UNO |
| BOLTS | ASTM A325 (3/4" DIAMETER MINIMUM) |
| WELD | |
| STRUCTURAL STEEL | E70XX |
| LIGHT GAUGE METALS | E60XX |

## CONCRETE

A ALL EXTERIOR CONCRETE, INCLUDING WALKS AND CURBS OUTSIDE THE BUILDING LINE, SHALL BE AIR ENTRAINED
B PROVIDE STANDARD BAR CHAIRS AND SPACERS FOR REINFORCING AT A MAXIMUM OF 4 FOOT CENTERS FOR ALL SLABS AND BEAMS
C LAP CONTINUOUS UNSCHEDULED REINFORCING BARS AS FOLLOWS: BOTTOM BARS IN MEMBERS SUPPORTED BY COLUMNS OR FOOTINGS - 12 INCH AT SUPPORTS ONLY. ALL OTHERS - (36) BAR DIAMETERS MINIMUM
D ALL HORIZONTAL REINFORCING IN CONTINUOUS FOOTINGS AND WALLS SHALL BE CONTINUOUS AROUND CORNERS OR HAVE CORNER BARS OF THE SAME SIZE AND SPACING AS THE HORIZONTAL BARS AND LAP A MINIMUM OF (30) BAR DIAMETERS, OR 24 INCH MINIMUM
E THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE BEAM, FOOTING, OR SLAB POURS. ALL CONSTRUCTION JOINTS SHALL BE MADE WITHIN THE CENTER THIRD OF SPANS WITH VERTICAL BULKHEADS. THE LOCATION OF CONSTRUCTION JOINTS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.
F WHERE CONCRETE PILASTERS, COLUMNS, OR BEAMS ARE TO BE LEFT EXPOSED AND DO NOT ABUT OTHER MATERIALS, EXTERNAL CORNERS SHALL BE CHAMFERED 3/4 INCH.
G WHERE SLEEVES ARE REQUIRED THROUGH BEAMS OR JOISTS, VERTICAL OR HORIZONTAL PIPE SLEEVES SHALL BE PROVIDED AS SPECIFIED UNDER THE MECHANICAL AND ELECTRICAL SECTIONS OF THE SPECIFICATION. LOCATION OF ALL SUCH SLEEVES SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. WHERE NECESSARY FOR STRUCTURAL REASONS, BEAMS OR JOISTS SHALL BE WIDENED TO COMPENSATE FOR THE LOSS OF CROSS SECTION DUE TO THE SLEEVE. ADD ONE EXTRA TIE OR STIRRUP ON BOTH SIDES OF EACH SLEEVE. WHERE TWO OR MORE PIPE SLEEVES ARE REQUIRED THROUGH CONCRETE SLABS, A DISTANCE EQUAL TO THREE TIMES THE LARGER SLEEVE DIAMETER SHALL BE PROVIDED BETWEEN SLEEVES

## DESIGN LOADS

A ALL APPLICABLE DEAD LOADS
B LIVE LOADS

| | |
|---|---|
| ROOF LIVE LOAD | 20 PSF |
| FLOOR LIVE LOAD | 100 PSF |
| MEZZANINE LIVE LOAD | 125 PSF |
| C COLLATERAL LOAD | 10 PSF |

D SNOW LOAD PER ASCE 7-10

| | |
|---|---|
| GROUND SNOW LOAD, $P_g$ | 5 PSF |
| FLAT-ROOF SNOW LOAD, $P_f$ | 5 PSF |
| DRIFT SURCHARGE LOAD(S) $P_d$ | NA |
| SNOW EXPOSURE FACTOR, $C_e$ | C |
| SNOW LOAD IMPORTANCE FACTOR, $I_s$ | I |
| THERMAL FACTOR, $C_t$ | 1.0 |
| SLOPE FACTOR(S) $C_s$ | 1.0 |
| WIDTH OF SNOW DRIFT(S), w | NA |

E LATERAL SOIL PRESSURE

| | |
|---|---|
| AT-REST | 56 PCF |
| ACTIVE | 37 PCF |
| PASSIVE | 360 PCF |

F WIND LOAD PER ASCE 7-16

| | |
|---|---|
| BASIC WIND SPEED | 105 MPH |
| EXPOSURE | C |
| CATEGORY | II |

G SEISMIC LOADS PER ASCE 7-16

| | |
|---|---|
| BUILDING CATEGORY | II |
| SEISMIC IMPORTANCE FACTOR, $I_e$ | 1.00 |
| MAPPED SPECTRAL RESPONSE ACCELERATION, $S_s$ | 12.4%g |
| MAPPED SPECTRAL RESPONSE ACCELERATION, $S_1$ | 3.3%g |
| SITE CLASS | D |
| SPECTRAL RESPONSE COEFFICIENT, $S_{DS}$ | 1.32 |
| SPECTRAL RESPONSE COEFFICIENT, $S_{D1}$ | 5.3 |
| SEISMIC DESIGN CATEGORY | A |
| BASIC SEISMIC FORCE RESISTING SYSTEM | |
| MEZZANINE | SHEAR WALL |
| PENB | INF |
| DESIGN BASE SHEAR, V MEZZANINE | 0.4 k |
| SEISMIC RESPONSE COEFFICIENT, $C_s$ | 2.01 |
| RESPONSE MODIFICATION FACTOR, R | A-15 |
| ANALYSIS PROCEDURE USED | EQUIVALENT LATERAL FORCE |

H DISTRIBUTE THE MAXIMUM LOAD HUNG FROM ANY STRUCTURAL MEMBER FOR MEP DUCTWORK, PIPING, ETC. OVER THE MEMBER'S TRIBUTARY AREA IN A WAY THAT THE DESIGN SUPERIMPOSED DEAD LOADS LISTED IN CONTRACT DOCUMENTS ARE NOT EXCEEDED. HANGING ITEMS FROM DECK IS STRICTLY PROHIBITED. THE CONTRACTOR SHALL COORDINATE THE LOADS OF ALL TRADES AND PROVIDE ADDITIONAL SUPPORT OR DISTRIBUTION FRAMING AS REQUIRED TO ACHIEVE THE ALLOWABLE LOAD DISTRIBUTION

## FOUNDATIONS

A ALL FOOTINGS ARE DESIGNED ON AN ALLOWABLE SOIL BEARING PRESSURE OF 3,500 POUNDS PER SQUARE FOOT AT A MINIMUM DEPTH OF 3'-0" FOOT BELOW 100'-0" FINISHED FLOOR ELEVATION
B PLACE 4 INCH GRANULAR FILL, MEETING TxDOT ITEM 247, GRADE 3, UNDER VAPOR BARRIER UNDER ALL UNSUPPORTED FLOOR SLABS ON FILL, EXCEPT AS OTHERWISE NOTED
C ALL EXTERIOR GRADE BEAMS SHALL BE CHAMFERED 3/4 INCH ON THE EXPOSED EXTERIOR CORNER
D REFER TO THE SOIL REPORT FOR SUBSOIL CONDITIONS THAT MAY BE ENCOUNTERED IN THE INSTALLATION OF FOUNDATIONS. AND OTHER INFORMATION RELEVANT TO FOUNDATIONS AND SITE PREPARATION
E DESIGN OF FOUNDATIONS AND STRUCTURAL COMPONENTS IN CONTACT WITH SOIL, AT THE WEST CCS BUILDING, IS BASED ON THE RECOMMENDATIONS GIVEN IN THE FOLLOWING GEOTECHNICAL REPORT

| | |
|---|---|
| REPORT BY | BEYOND ENGINEERING AND TESTING |
| DATE OF REPORT | JANUARY 5, 2022 |
| REPORT NUMBER | GT2111051 |

F DESIGN OF FOUNDATIONS AND STRUCTURAL COMPONENTS IN CONTACT WITH SOIL, AT THE NORTH CCS BUILDING, IS BASED ON THE RECOMMENDATIONS GIVEN IN THE FOLLOWING GEOTECHNICAL REPORT

| | |
|---|---|
| REPORT BY | TERRACON |
| DATE OF REPOT | JULY 14, 2023 |
| REPORT NUMBER | A4235100 |

## SITE PLANNING AND FILL NOTES

A PROPER CONSTRUCTION DRAINAGE SHALL BE PROVIDED AND MAINTAINED AT ALL TIMES DURING FOUNDATION CONSTRUCTION. PONDING OF WATER AT THE SITE SHOULD BE AVOIDED DURING ALL PHASES OF CONSTRUCTION.
B REMOVE SURFACE DEBRIS, VEGETATION, ORGANIC TOP SOIL, LOOSE SOIL AND MAJOR ROOT SYSTEMS. REMOVAL SHALL EXTEND 5 FOOT BEYOND BUILDING AREAS, CITIZENS DESPOSAL AREA AND 2 FOOT BEYOND PAVING AREAS
C COMPACT RESULTING SUBGRADE AND VERIFY STABILITY USING A PROOF-ROLL TEST. CONDUCT A PROOF-ROLL TESTS AS INDICATED IN THE GEOTECHNICAL REPORT. FOR SOFT SPOTS AND AREAS THAT EXHIBIT PUMPING, SCARIFY AND RECOMPACT TOP 6 INCHES OF SUBGRADE TO MINIMUM OF 98 PERCENT OF ASTM D698 OR ASTM D1557 MAXIMUM DENSITY
D BUILDING PAD SHALL BE RAISED TO PROPER ELEVATION USING SATISFACTORY SOILS COMPACTED IN 8 INCH MAXIMUM LOOSE LIFTS TO 98 PERCENT OF ASTM D698 MAXIMUM DENSITY, OR AS PRESCRIBED BY THE GEOTECHNICAL ENGINEER. MOISTURE SHALL BE CONTROLLED TO WITHIN 3 PERCENT OF OPTIMUM FOR COHESIVE SOILS AND 3 PERCENT FOR COHESIONLESS SOILS PER D698 DURING COMPACTION OPERATIONS
E FOOTINGS MAY BE BACK FILLED USING SATISFACTORY SOILS AS SPECIFIED, COMPACTED IN 6 INCH MAXIMUM LOOSE LIFTS TO 98 PERCENT OF MAXIMUM DENSITY PER ASTM D698
F UTILITY TRENCHES WITHIN BUILDING OR PAVING AREAS SHALL BE FILLED PER THE ABOVE CRITERIA

## PRE-ENGINEERED BUILDING

A THE BUILDING SHALL BE A MANUFACTURER'S STANDARD PREFABRICATED METAL STRUCTURE OF THE APPROXIMATE INSIDE AREA SHOWN, EXCEPT AS NOTED. RIGID FRAMES SHALL BE SPACED AS SHOWN ON THE DRAWINGS. BUT OVERALL DIMENSIONS AND CONSTRUCTION DETAILS MAY VARY TO SUIT MANUFACTURER'S STANDARD DESIGN. HOWEVER, MINIMUM WEB THICKNESS OF RIGID FRAMES SHALL BE 3/16 INCH
B THE BUILDING SHALL BE DESIGNED AND FABRICATED ACCORDING TO AISC, MBMA, AND AISI LATEST SPECIFICATIONS. THE DIMENSIONAL TOLERANCES APPLICABLE TO ROLL FORM STEEL UNDER THE AISC "STANDARD MILL PRACTICE" SECTION SHALL BE REQUIRED IN THE FABRICATION OF THE STEEL BUILDING FRAMES
C A COMPLETE DESIGN ANALYSIS SHOWING ALL CALCULATIONS FOR THE RIGID FRAMES, GIRTS, PURLINS, AND X-BRACING FOR WIND AND SEISMIC LOADS AND A LAYOUT OF ANCHOR BOLTS AND OTHER EMBEDDED ITEMS SHALL BE SUBMITTED FOR APPROVAL WITH THE SHOP DRAWINGS. SHOP DRAWINGS SHALL INCLUDE DETAILS OF MAIN MEMBERS, TYPICAL CONNECTIONS (SHOWING BOLT HOLES AND WELDS), AND ERECTION DRAWINGS
D THE BUILDING SHALL BE DESIGNED TO SUPPORT ALL MECHANICAL EQUIPMENT INCLUDING HEATERS, SPRINKLERS, EXHAUST SYSTEMS, AND ALL OTHER SUCH DEVICES. ADDITIONAL GIRTS OR PURLINS SHALL BE PLACED IN CONVENIENT LOCATIONS FOR ATTACHMENT OF ALL MECHANICAL EQUIPMENT

## CONCRETE MIX DESIGNS

ALL CONCRETE TO BE NORMAL WEIGHT CONCRETE. MAXIMUM FLY ASH CONTENT TO BE NO MORE THAN 25% OF TOTAL CEMENTITIOUS WEIGHT. IF TYPE 1L CEMENT USED, MIX DESIGN OR STRENGTH RESULTS MUST BE FOR TYPE 1L CEMENT.
A CONTINUOUS FOOTINGS, GRADE BEAMS AND TIE BEAMS
  a CEMENT TYPE I-II
  b MINIMUM COMPRESSIVE STRENGTH
    1 4,000 PSI AT 28 DAYS
  c MAXIMUM W/C RATIO
    1 0.50
  d MAXIMUM AGGREGATE SIZE
    1 3/4 INCH
  e SLUMP LIMIT
    1 4 INCHES SLUMP, ± 1 INCH
B RETAINING WALLS
  a CEMENT TYPE I-II
  b MINIMUM COMPRESSIVE STRENGTH
    1 4,000 PSI AT 28 DAYS
  c MAXIMUM W/C RATIO
    1 0.50
  d MAXIMUM AGGREGATE SIZE
    1 3/4 INCH
  e SLUMP LIMIT
    1 6 INCHES PLUS OR MINUS 1 INCH FOR CONCRETE WITH A VERIFIED SLUMP OF 3 INCHES ± 1 INCH
C SLABS ON-GRADE
  a CEMENT TYPE I-II
  b MINIMUM COMPRESSIVE STRENGTH
    1 4,000 PSI AT 28 DAYS
  c MAXIMUM W/C RATIO
    1 0.45
  d MAXIMUM AGGREGATE SIZE
    1 3/4 INCH
  e SLUMP LIMIT
    1 6 INCHES PLUS OR MINUS 1 INCH FOR CONCRETE WITH A VERIFIED SLUMP OF 3 INCHES ± 1 INCH
  f AIR CONTENT
    1 DO NOT ALLOW AIR CONTENT OF TROWEL-FINISHED FLOORS TO EXCEED 3%
  g MINIMUM CEMENTITIOUS MATERIALS CONTENT
    1 MINIMUM CEMENTITIOUS MATERIAL SHALL BE PER TABLE 4.2.2.1 IN ACI 301 RELATIVE TO THE MAXIMUM AGGREGATE SIZE

## FLOOR SLABS

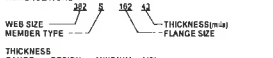
A ELEVATED FLOOR SLABS SHALL BE POURED MONOLITHICALLY OR POUR STOPS MAY BE PLACED AT MOMENT FRAME LINES
B CURING SLABS ON GRADE
  a SLABS ON GRADE SHALL BE WET CURED FOR 7 DAYS AFTER CONCRETE PLACEMENT. WET CURING SHALL BEGIN IMMEDIATELY AFTER FINAL FINISHING OF SLAB SURFACE AND SHALL CONSIST OF CONTINUOUS MISTING BY SPRINKLER OR WET BURLAP. CONTRACTOR SHALL APPLY APPROVED CURING COMPOUND.
C CURING ELEVATED SLABS
  a ELEVATED SLABS SHALL BE CURED BY APPLYING SHEETS OF PLASTIC OVER THE SURFACE FOR 7 DAYS AFTER CONCRETE PLACEMENT. CONTRACTOR SHALL APPLY APPROVED CURING COMPOUND AFTER REMOVAL OF PLASTIC SHEETS.
D FLOOR SLAB ISOLATION JOINTS SHALL BE 30 POUND FELT, UNLESS NOTED OTHERWISE.
E CONCRETE FLOOR SLAB ON GRADE SHALL BE PLACED IN LANES. SPACING OF JOINTS SHALL BE AS SHOWN ON THE FOUNDATION PLANS. CONSTRUCTION JOINTS SHALL BE USED FOR THE JOINTS BETWEEN LANES, WHILE WEAKENED PLANE JOINTS SHALL BE USED ACROSS EACH LANE.
F CONSTRUCTION AND CONTRACTION JOINTS SHALL BE LOCATED AS INDICATED ON THE PLAN WHERE CONTRACTION JOINTS ARE INDICATED. SAW CUTTING SHALL BEGIN AS SOON AS POSSIBLE WITHOUT DAMAGING THE SLAB.

## REINFORCEMENT AND MISC STEEL

A UNLESS OTHERWISE NOTED, CONCRETE COVER OVER STEEL REINFORCEMENT SHALL CONFORM TO THE MINIMUMS REQUIRED BY THE AFOREMENTIONED EDITION OF ACI 318
B REINFORCEMENT DETAILING AND PLACEMENT SHALL CONFORM TO ACI 318 AND ACI 315, EXCEPT WHERE OTHERWISE INDICATED
C SUBSTITUTION OF EXPANSION ANCHORS FOR EMBEDDED ANCHORS SHOWN ON THE DRAWINGS WILL NOT BE PERMITTED
D ALL REINFORCING STEEL, ANCHOR BOLTS, AND EMBEDDED ANCHORS SHALL BE SECURELY SET IN PLACE PRIOR TO PLACEMENT OF CONCRETE

## LIGHT GAUGE STEEL

A PRODUCT IDENTIFICATION
  a NOMENCLATURE




  b THICKNESS

| GAUGE | DESIGN | MINIMUM | AISI |
|---|---|---|---|
| 20 | 0.0346" | 0.0329" | 33 mils |
| 18 | 0.0451" | 0.0428" | 43 mils |
| 16 | 0.0566" | 0.0538" | 54 mils |
| 14 | 0.0713" | 0.0677" | 68 mils |
| 12 | 0.1017" | 0.0966" | 97 mils |

B STUD FRAMING
  a ALL FIELD CUTTING OF STUDS MUST BE DONE BY SAWING, SHEARING, OR PLASMA CUTTING. OTHER TORCH CUTTING METHODS OF COLD-FORMED STEEL MEMBERS ARE UNACCEPTABLE.
  b NOTCHING OR COPING OF STUDS IS NOT ALLOWED, UNLESS NOTED OTHERWISE.
  c FRAMING FABRICATOR IS TO ENSURE PUNCH OUT ALIGNMENT WHEN ASSEMBLING LATERAL BRACING AND FIELD CUTTING STUDS TO LENGTH. LATERAL BRACING MUST BE INSTALLED AT THE TIME THE WALL IS ERECTED.
  d ALL HEADERS ARE TO BE CONSTRUCTED WITH UNPUNCHED MATERIAL ONLY.
  e THE MAXIMUM ALLOWABLE GAP (MEASURED BETWEEN THE WEB OF THE STUD AND THE WEB OF THE TRACK) FOR A STUD SEATED IN A TRACK IS 1/8". PRESSURE SHOULD BE APPLIED TO NEST THE STUDS INTO THE TRACK UNTIL THE AFOREMENTIONED TOLERANCE IS ACHIEVED.
C CONNECTIONS
  a FOR SCREW CONNECTIONS, A MINIMUM OF 1.5 x SCREW DIAMETER CLEARANCE MUST BE MAINTAINED FROM ALL EDGES OF STEEL MEMBERS. A MINIMUM OF 3.0 x SCREW DIAMETER ON-CENTER SPACING MUST BE MAINTAINED BETWEEN ADJACENT SCREWS.
  b IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THAT FASTENERS ARE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS

## POST-INSTALLED ANCHORS

EXCEPT WHERE INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES, AS PROVIDED BY HILTI, INC OR APPROVED EQUAL. CONTACT HILTI AT (800) 879-8000 FOR PRODUCT RELATED QUESTIONS.
A ANCHORS TO CONCRETE
  a ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE
    1 HILTI HIT-HY 200 V3 SAFE SET SYSTEM WITH HILTI HIT-Z ROD PER ICC ESR-3187
    2 HILTI HIT-HY 200 V3 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT (TE-CD OR TE-YD) AND VC 140 VACUUM SYSTEM WITH HAS-E-SS THREADED ROD PER ICC ESR-3187
    3 HILTI HIT-HY 200 V3 SAFE SET SYSTEM WITH HILTI ROUGHENING TOOL (HIT RT) WITH HAS-E THREADED ROD PER ICC ESR-3187 FOR DIAMOND CORED HOLES
    4 HILTI HIT-RE-500-V3 SAFE-SET SYSTEM WITH HILTI HOLLOW DRILL BIT (TE-CD OR TE-YD) AND VC 140 VACUUM WITH HAS-E-SS THREADED ROD PER ICC ESR-3814 FOR SLOW CURE APPLICATIONS
    5 HILTI HIT-RE 500 V3 SAFE SET SYSTEM WITH HILTI ROUGHENING TOOL (HIT RT) WITH HAS-E THREADED ROD PER ICC ESR-3814 FOR DIAMOND CURED HOLES
  b MEDIUM DUTY MECHANICAL ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE
    1 HILTI KWIK HUS EZ AND KWIK HUS EZ I SCREW ANCHORS SAFE SET SYSTEM WITH HOLLOW DRILL BIT AND VACUUM SYSTEM PER ICC ESR 3027
    2 HILTI KWIK BOLT-TZ2 EXPANSION ANCHORS SAFE SET SYSTEM WITH HOLLOW DRILL BIT AND VACUUM SYSTEM AND SI-AT-A22 WITH ADAPTIVE TORQUE PER ICC ESR-1917
    3 HILTI KWIK BOLT 1 (CARBON STEEL) OR KWIK BOLT 3 (OTHERS) EXPANSION ANCHOR SAFE SET SYSTEM WITH HOLLOW DRILL BIT AND VACUUM SYSTEM AND SI-AT-A22 WITH ADAPTIVE TORQUE (UNCRACKED CONCRETE ONLY) PER ICCC ESR-2302
  c HEAVY DUTY MECHANICAL ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE
    1 HILTI HDA UNDERCUT ANCHORS PER ICC ESR 1546
    2 HILTI HSL-3 EXPANSION ANCHORS PER ICC ESR 1545
B REBAR DOWELING INTO CONCRETE
  a ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE
    1 HILTI HIT-HY 200 V3 SAFE SET SYSTEM WITH HOLLOW DRILL BIT (TE-CD OR TE-YD) AND VC 140 VACUUM SYSTEM WITH CONTINUOUSLY DEFORMED REBAR PER ICC ESR-3187
    2 HILTI HIT-HY 200 V3 SAFESET SYSTEM WITH HILTI ROUGHENING TOOL (HIT RT) WITH HAS-E THREADED ROD PER ICC ESR-3187 FOR DIAMOND CORED HOLES
    3 HILTI HIT-RE-500-V3 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT (TE-CD OR TE-YD) AND VC 140 VACUUM SYSTEM WITH CONTINUOUSLY DEFORMED REBAR PER ICC ESR-3814
    4 HILTI HIT-RE 500-V3 SAFE SET SYSTEM WITH HILTI ROUGHENING TOOL (HIT RT) WITH CONTINUOUSLY DEFORMED REBAR PER ICC ESR-3814 IN DIAMOND CORED HOLES
C ANCHORAGE TO SOLID GROUTED MASONRY
  a ADHESIVE ANCHORS USE
    1 HILTI HIT-HY 270 MASONRY ADHESIVE ANCHORING SYSTEM (ICC ESR-4143)
    2 STEEL ANCHOR ELEMENT SHALL BE HILTI HAS-E CONTINUOUSLY THREADED ROD (OR EQUAL) OR CONTINUOUSLY DEFORMED STEEL REBAR
  b MECHANICAL ANCHORS USE
    1 HILTI KWIK BOLT 1 (CARBON STEEL) OR KWIK BOLT 3 (OTHERS) EXPANSION ANCHORS PER ICC ESR-1385
D ANCHORAGE TO HOLLOW/MULTI-WYTHE MASONRY
  a ADHESIVE ANCHORS USE
    1 HILTI HIT-HY 270 MASONRY ADHESIVE ANCHORING SYSTEM PER ICC ESR-4144
    2 STEEL ANCHOR ELEMENT SHALL BE HILTI HAS-E CONTINUOUSLY THREADED ROD (OR EQUAL) OR CONTINUOUSLY DEFORMED STEEL REBAR
    3 THE APPROPRIATE SIZE SCREEN TUBE SHALL BE USED PER ADHESIVE MANUFACTURER'S RECOMMENDATION
E ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY HILTI OR SUCH OTHER METHOD AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBMITTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIRS HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.
F INSTALL ANCHOR PER THE MANUFACTURER INSTRUCTION, AS INCLUDED IN THE ANCHOR PACKAGING.
G OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE HILTI PROFIS SYSTEM.
H THE CONTRACTOR SHALL ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ON-SITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO COMMENCEMENT OF INSTALLING ANCHORS.
I ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
J EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURAL DRAWINGS MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED OTHERWISE THAT THE BARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS BY HILTI FERROSCAN, GPR, X RAYING, CHIPPING, OR OTHER APPROVED MEANS

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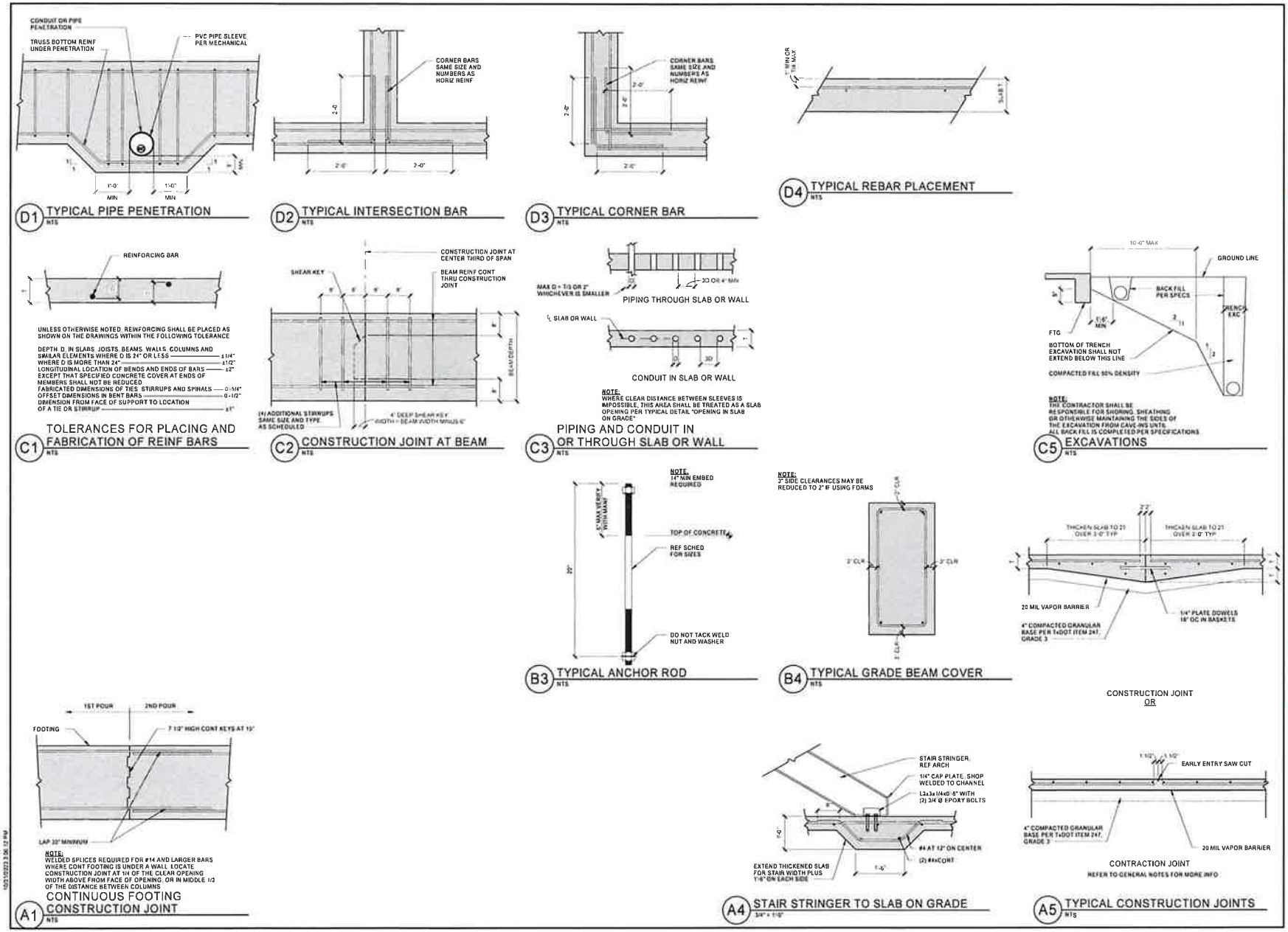
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**General Notes**

**S-001**




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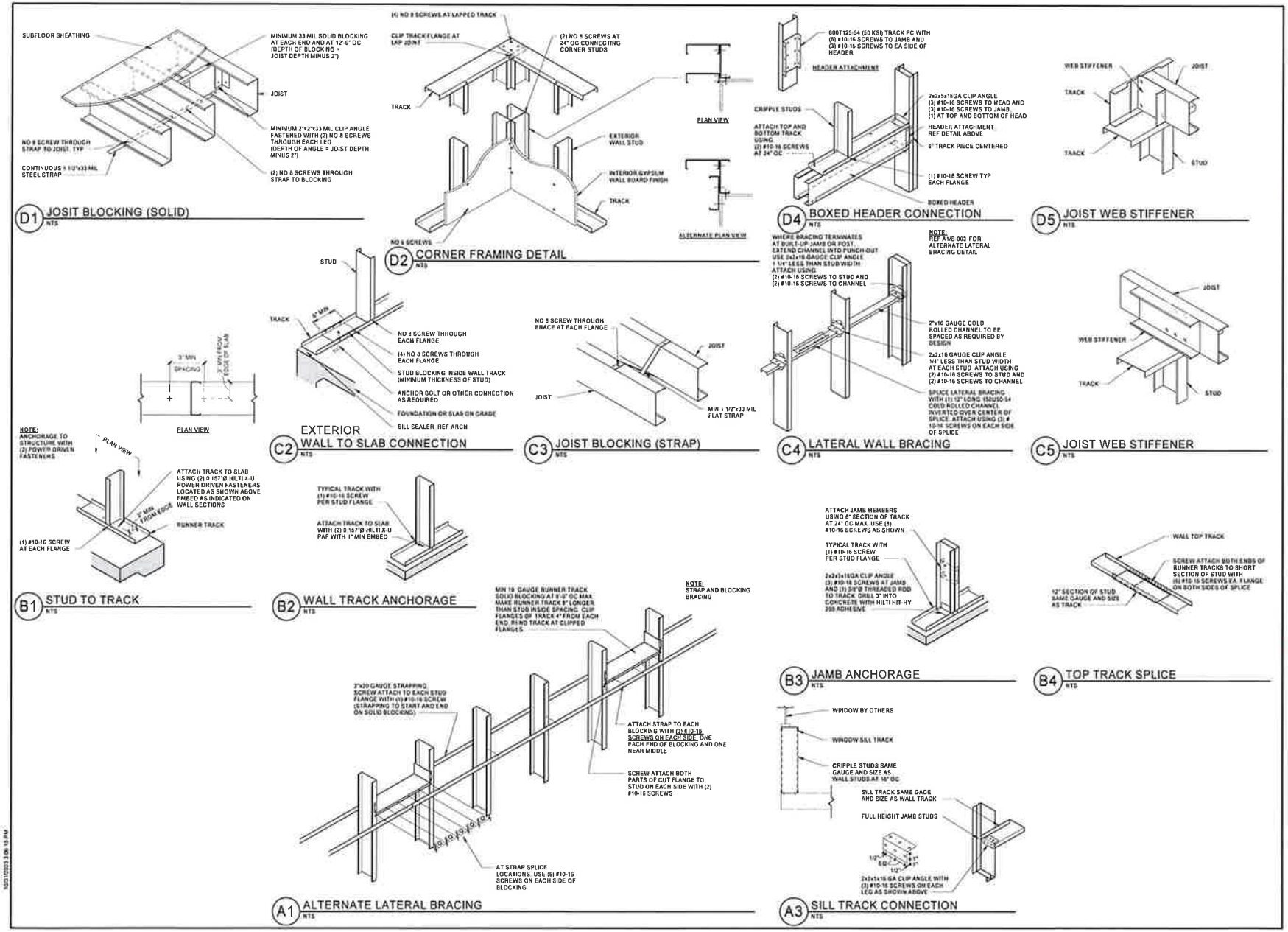
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**S-002**




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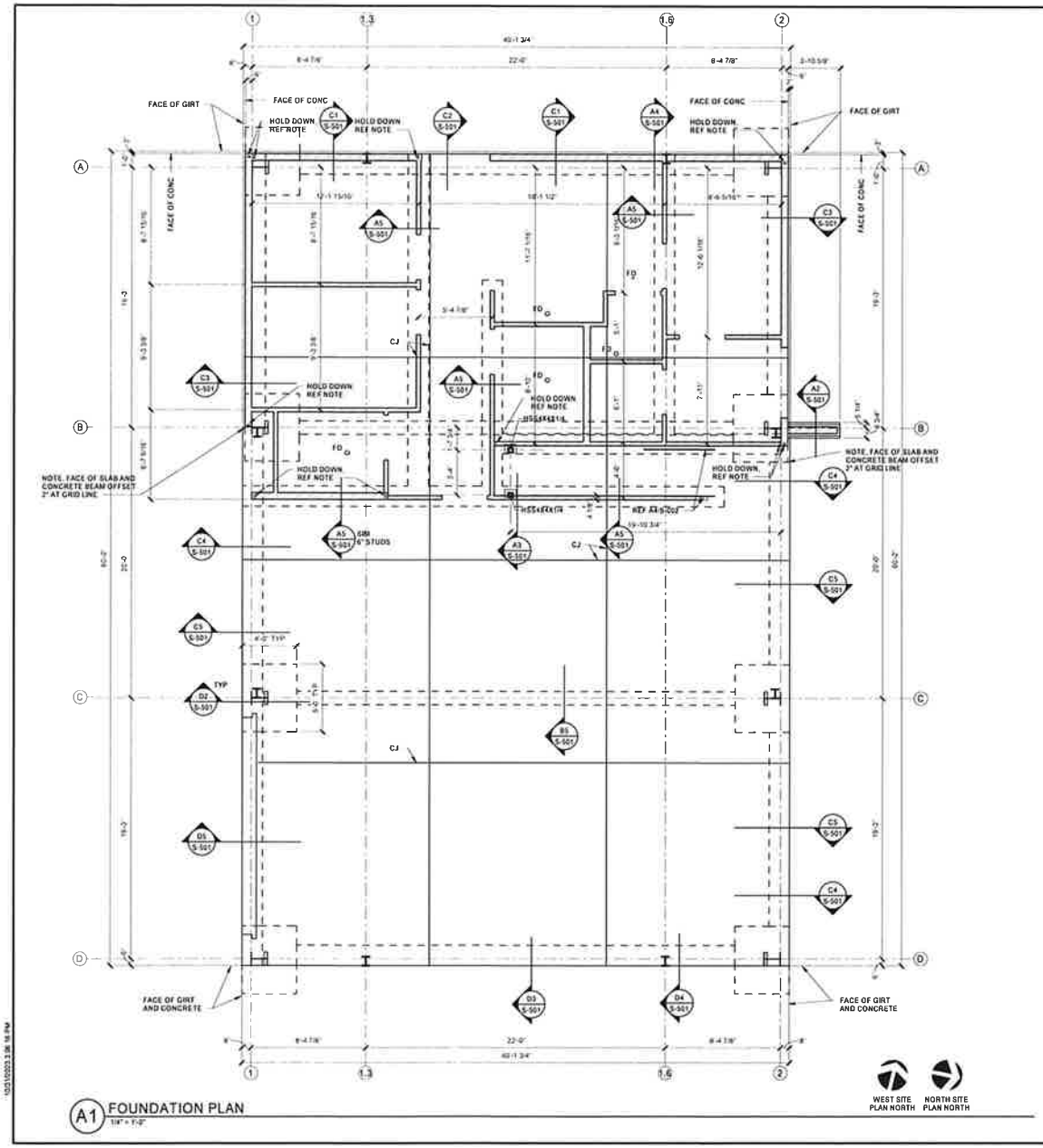
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**Light Gauge Steel Details**

**S-003**




A1 FOUNDATION PLAN

WEST SITE PLAN NORTH

NORTH SITE PLAN NORTH

## GENERAL FOUNDATION NOTES

1. FLOOR SLAB ON GRADE SHALL BE 6" THICK REINFORCED WITH #5 AT 16" ON CENTER EACH WAY, CHAIRED IN THE CENTER OF THE SLAB OVER 20 MIL VAPOR BARRIER OVER 4" COMPACTED BASE MEETING TxDOT ITEM 247, GRADE 3
2. EXTERIOR DIMENSIONS ARE TO FACE OF GIRT AND CONCRETE
3. INTERIOR STUD DIMENSIONS ARE TO CENTER LINE OF WALL
4. INTERIOR STUD WALLS ARE 3 5/8" WIDE EXCEPT AS NOTED
5. SIMPSON S/DTT2Z HOLD DOWNS ARE SECURED TO STUD WITH (8) #14 SCREWS AND TO SLAB WITH HILTI HIT-INZ ROD 1/2" DIAMETER WITH 5" EMBEDMENT USING EPOXY SYSTEM INDICATED ON SHEET S.001
6. FD = FLOOR DRAIN. REFERENCE ARCHITECTURAL AND PLUMBING DRAWINGS.
7. CJ = SLAB JOINT. EITHER CONSTRUCTION OR CONTRACTION AT CONTRACTOR'S OPTION. REFERENCE A5/S.002

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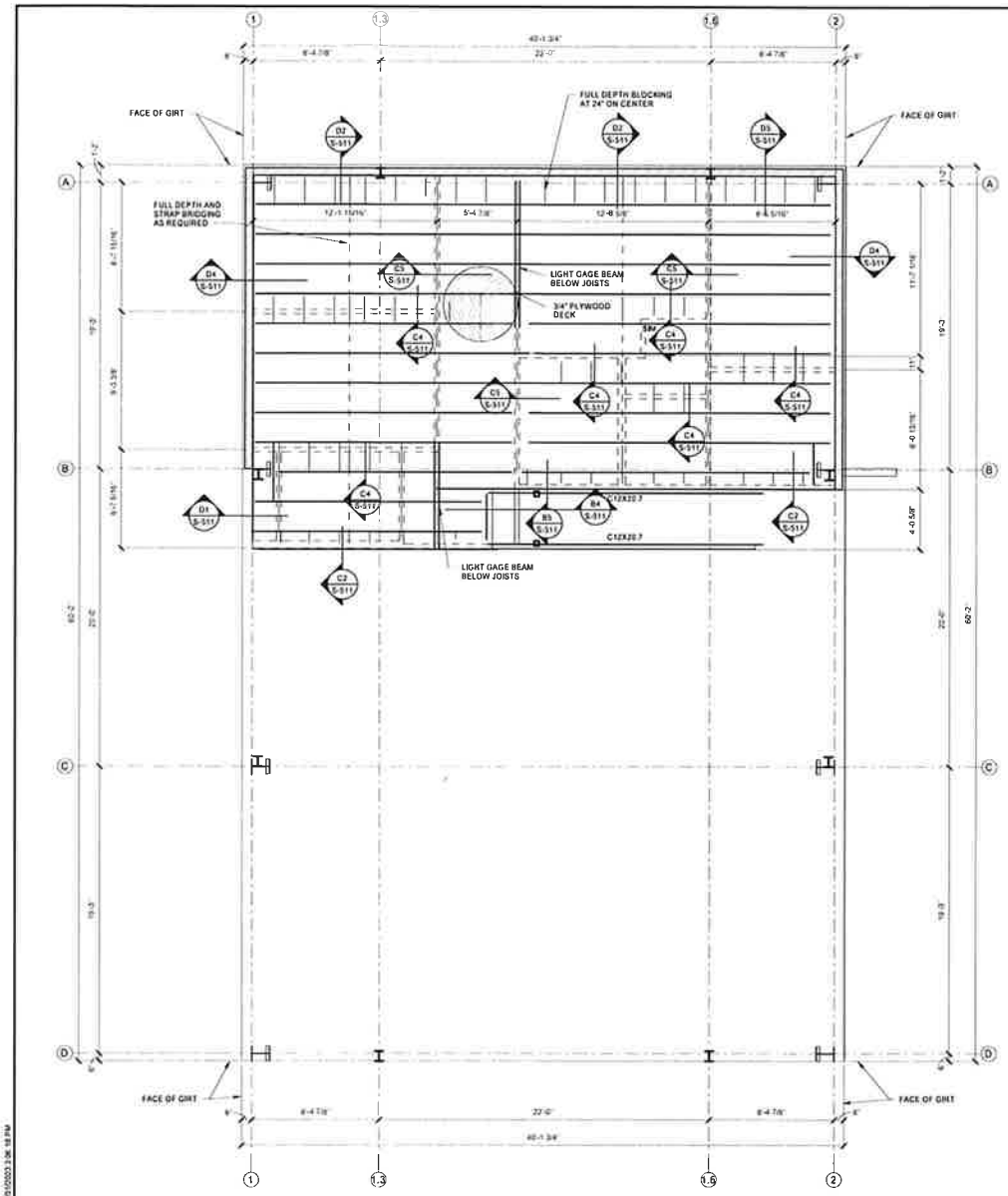
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**Foundation Plan**

**S-111**




A1 MEZZANINE FRAMING PLAN

WEST SITE PLAN NORTH

NORTH SITE PLAN NORTH

## GENERAL FRAMING NOTES

1. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN
2. FLOOR DECK SHALL BE 3/4" THICK A.C. GROUP 1 SANDED PLYWOOD PANELS WITH LONG DIRECTION PERPENDICULAR TO JOISTS SECURED TO LIGHT GAGE JOISTS WITH #8 SELF DRILLING, SELF TAPPING FLAT HEAD SCREWS AT 6" ON CENTER AT EDGES AND 12" ON CENTER IF FIELD OF SHEET
3. FLOOR JOISTS SHALL BE MINIMUM 1200S200-68 JOISTS AT 24"ON CENTER PROVIDE WEB STIFFENER AT EACH END AND AT INTERMEDIATE SUPPORTS

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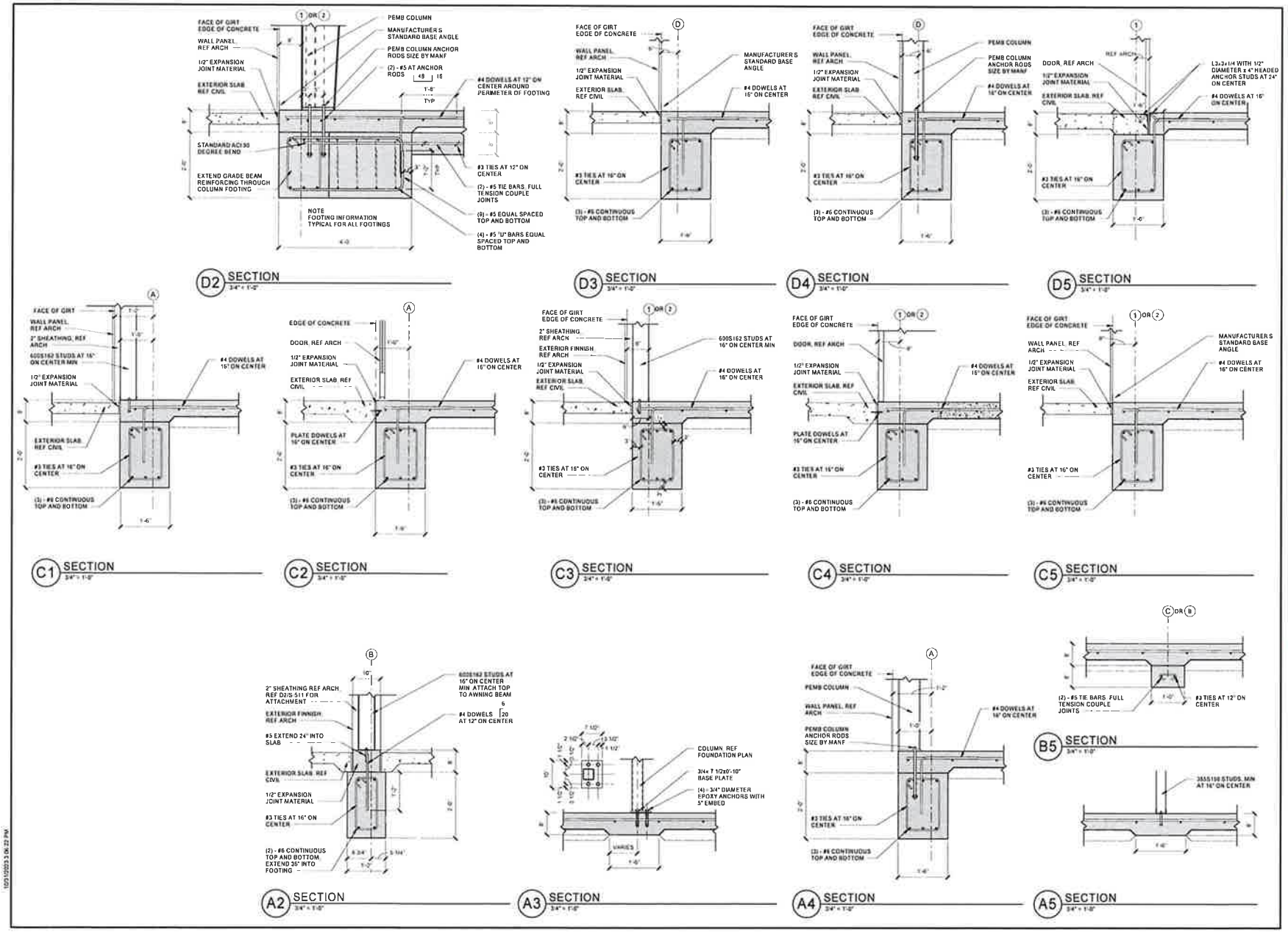
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**Mezzanine Framing Plan**

**S-121**




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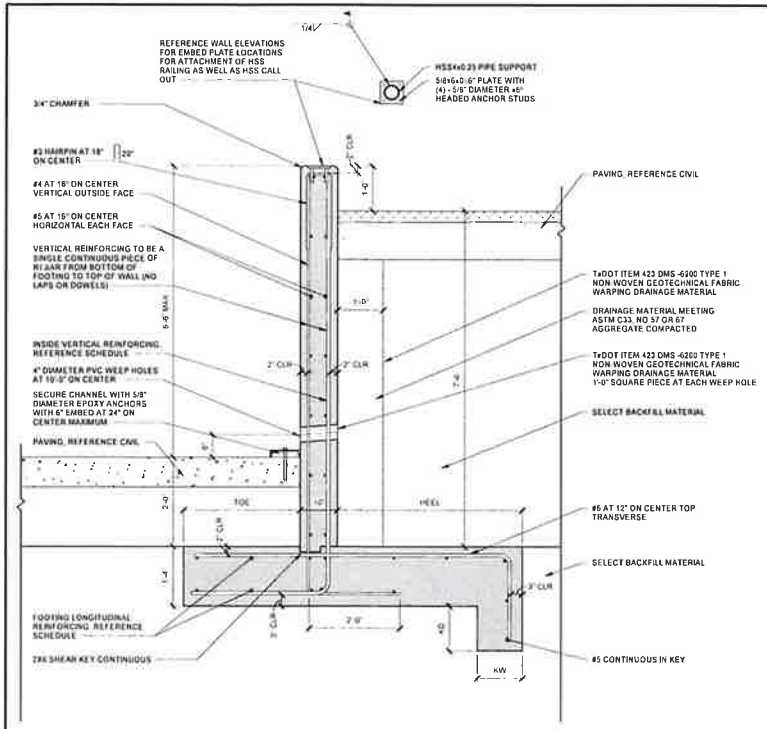
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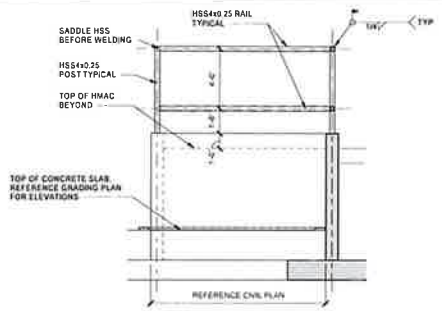
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**S-501**

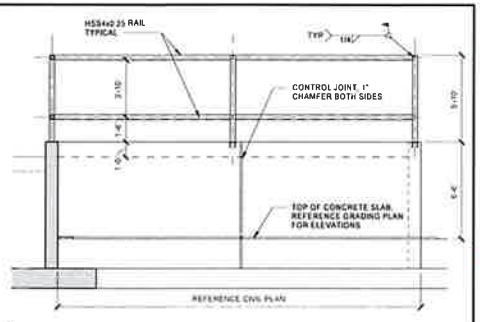
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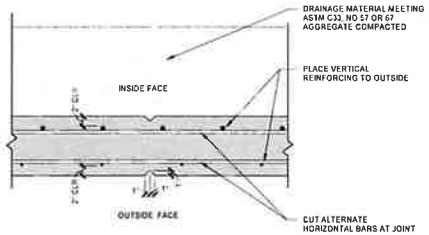

C1 RETAINING WALL
3/4" = 1'-0"



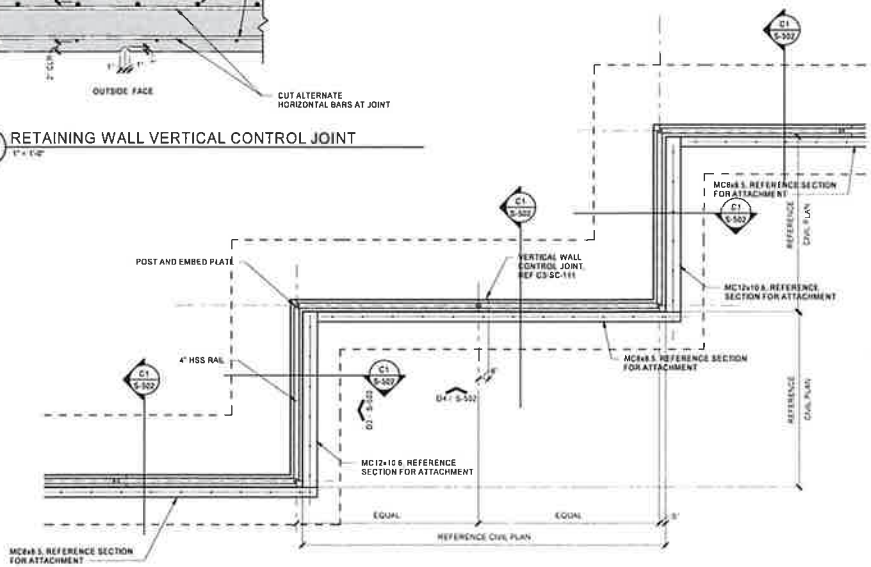

D3 ELEVATION
1/4" = 1'-0"




D4 ELEVATION
1/4" = 1'-0"




C3 RETAINING WALL VERTICAL CONTROL JOINT
1" = 1'-0"




A3 CITIZEN DROP AREA
1/4" = 1'-0"

## RETAINING WALL TABLE

| HEIGHT | TOE | HEEL | WIDTH | KEY WIDTH | KEY DEPTH | INSIDE VERTICAL REINFORCING | KEY REINFORCING | LONGITUDINAL FOOTING REINF | | BEARING PRESSURE (PSF) | | SAFETY FACTOR | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H | T | B | W | KW | KD | | | TOP | BOTTOM | TOE | HEEL | SLIDING | OVER-TURNING |
| 2'-0" OR LESS | 1'-0" | 2'-2" | 4'-6" | – | – | #5 AT 9" | – | (3) - #5 | (3) - #5 | 1 209 | 88 | 3 99 | 3 19 |
| 4'-0" - 2'-6" | 1'-6" | 3'-2" | 5'-6" | – | – | #5 AT 9" | – | (6) - #5 | (3) - #5 | 1586 | 52 | 2 83 | 2 81 |
| 5'-0" - 4'-6" | 2'-0" | 3'-2" | 6'-0" | – | – | #6 AT 9" | – | (7) - #5 | (6) - #5 | 1 670 | 72 | 2 42 | 2 68 |
| 6'-0" - 5'-0" | 2'-6" | 3'-2" | 6'-6" | 1'-0" | 1'-0" | #6 AT 9" | (2) - #5 CONTINUOUS | (8) - #5 | (5) - #5 | 1 802 | 59 | 2 29 | 2 59 |

DESIGN CRITERIA
EQUIVALENT FLUID PRESSURE = 37 PCF
DESIGN BACKFILL DENSITY = 110 PCF
DESIGN CONCRETE WEIGHT = 145 PCF
HEEL SURCHARGE = 250 PSF
TOE SURCHARGE = 75 PSF
CONCRETE STRENGTH (f'c) = 4 000 PSI
REINFORCING YIELD (Fy) = 60 000 PSI
FOOTING SOIL FRICTION FACTOR = 0 35

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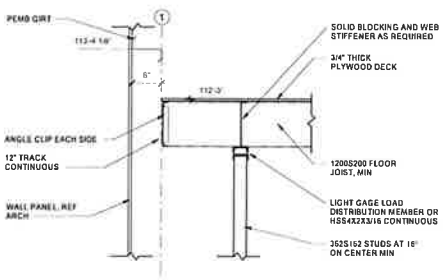
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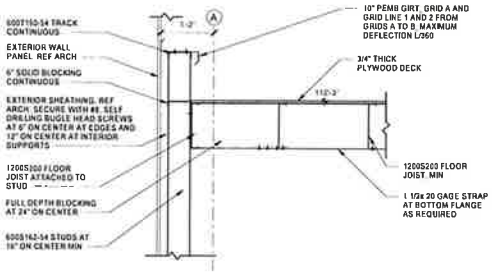
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**Foundation Details**

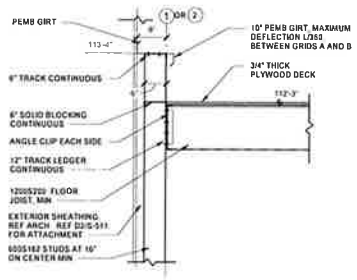
**S-502**



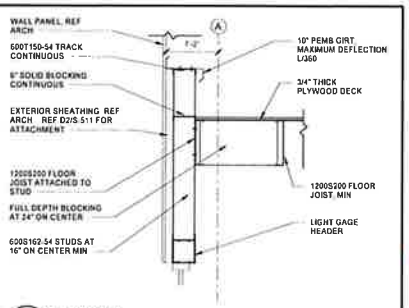

D1 SECTION 3/4" = 1'-0"



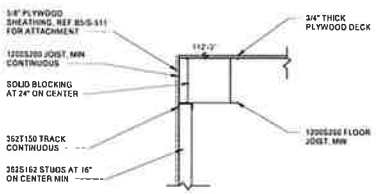

D2 SECTION 3/4" = 1'-0"



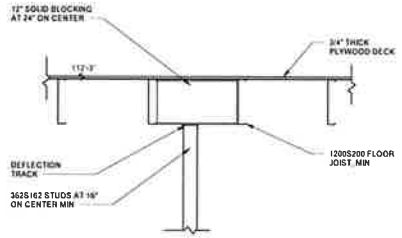

D4 SECTION 3/4" = 1'-0"



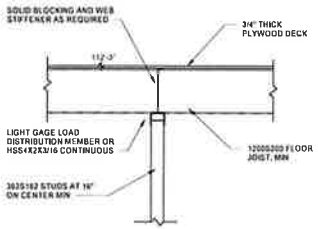

D5 SECTION 3/4" = 1'-0"



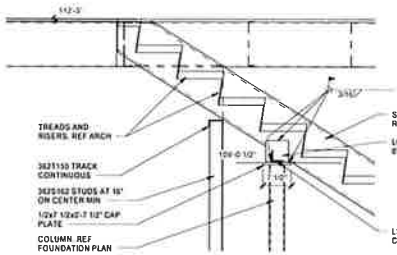

C2 SECTION 3/4" = 1'-0"



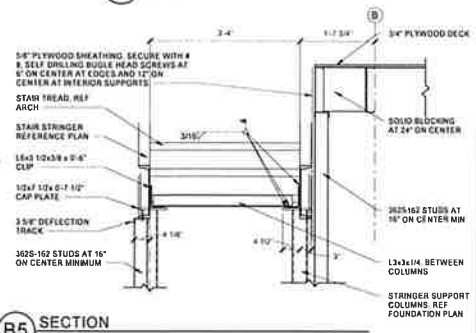

C4 SECTION 3/4" = 1'-0"




C5 SECTION 3/4" = 1'-0"




B4 SECTION 3/4" = 1'-0"




B5 SECTION 3/4" = 1'-0"

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**Midland West CCS**

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City of Midland

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Midland, Texas

PROJECT NO.
6118.21 - WEST
43012.22 - NORTH

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**Framing Details**

**S-511**

## INTERIOR LEGEND

| | |
|---|---|
| AA | FINISH TAG |
| | FIXTURES/ FURNITURE/ EQUIPMENT/ SIGNAGE |
| | NOT IN SCOPE |

## FLOOR PLAN LEGEND

| | |
|---|---|
| | CONCRETE WALL |
| | FACE BRICK |
| | CMU WALL |
| MJ | MASONRY CONTROL JOINT |
| | EXISTING CONSTRUCTION TO REMAIN |
| | EXISTING CONSTRUCTION TO BE REMOVED |
| | NEW STUD WALL |
| | NEW PARTIAL HEIGHT WALL |
| | GLAZING SYSTEM |
| | WIRE MESH OR FABRIC PARTITION |
| CG1 | CORNER GUARD |
| CG1 | END WALL GUARD |
| WG1 | WALL GUARD |
| HR1 | HANDRAIL |
| FEC | FIRE EXTINGUISHER AND CABINET |
| FEB | FIRE EXTINGUISHER AND BRACKET |
| | FURNITURE/EQUIPMENT NIC |
| DS | DOWN SPOUT |
| FD | FLOOR DRAIN |
| 000 | DOOR NUMBER |
| 00 | WINDOW MARK |
| LV00 | LOUVER MARK |
| HM00 | HOLLOW METAL FRAME MARK |
| AL00 | ALUMINUM FRAME MARK |
| 00 | PARTITION TYPE |
| AA | FINISH TAG |

## RCP LEGEND

| | |
|---|---|
| | CEILING TRACK |
| CJ | CONTROL JOINT |
| | ACCESS PANEL |
| | SKYLIGHT |
| | GYP BD CEILING |
| | SUSPENDED METAL LATH AND PLASTER CEILING |
| | SUSPENDED ACOUSTICAL CEILING SYSTEM TYPE A |
| | SUSPENDED ACOUSTICAL CEILING SYSTEM TYPE B |

## ROOF LEGEND

| | |
|---|---|
| RD | ROOF DRAIN |
| OD | OVERFLOW DRAIN |
| | SLOPE |
| | ROOF MOUNTED EQUIPMENT |
| | VENT THROUGH ROOF (VTR) |
| | SKYLIGHT |
| | ROOF HATCH |

## DETAIL LEGEND

| | |
|---|---|
| | COMPACTED SOIL |
| | UNDISTURBED SOIL |
| | STONE MARBLE |
| | PLASTER OR STUCCO ON METAL LATH |
| | STEEL |
| | CONCRETE IN SECTION |
| | BRICK |
| | CMU |
| | BATT INSULATION |
| | ACOUSTICAL TILE |
| | RIGID INSULATION |
| | WOOD CONTINUOUS |
| | WOOD DISCONTINUOUS |
| | PLASTER, SAND OR CEMENT GROUT |
| | POUROUS FILL, GRAVEL (CAPILLARY WATER BARRIER PAVEMENT BASE) |
| | TERAZZO (IN SECTION) |

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PROJECT NO.
61121 - WEST
40015 22 - NORTH

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**Architectural / Interior Legends**

**A-001**

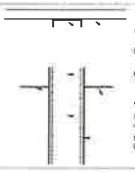
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# INTERIOR PARTITION SCHEDULE

| | (PLAN) | PARTITION TYPE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| A |  SOUND ATTENUATION BLANKET AS SCHEDULED; NON-STRUCTURAL METAL FRAMING; 1 LAYER GYPSUM BOARD EACH SIDE; METAL FRAMING WALL ASSEMBLY | ASSEMBLY THICKNESS | 3 3/4" | 3 3/4" | 4 7/8" | 4 7/8" | 7 1/8" | 7 1/8" | 9 1/4" | 9 1/4" |
| | | NON-STRUCTURAL METAL FRAMING | 2 1/2" | 2 1/2" | 3 5/8" | 3 5/8" | 6" | 6" | 8" | 8" |
| | | SOUND-ATTENUATION BLANKETS | | REQ | | REQ | | REQ | REQ | REQ |
| | | UL DESIGN ASSEMBLY | U465 | U465 | U465 | U465 | U465 | U465 | U465 | U465 |
| | | FIRE RATING (IF REQUIRED BY CODE SHEET) | 1 HOUR | 1 HOUR | 1 HOUR | 1 HOUR | 1 HOUR | 1 HOUR | 1 HOUR | 1 HOUR |
| | | STC RATING | 35 | 48 | 40 | 46 | | 51 | | |
| B |  SOUND ATTENUATION BLANKET AS SCHEDULED; NON-STRUCTURAL METAL FRAMING; 1 LAYER GYPSUM BOARD; METAL FRAMING WALL ASSEMBLY | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | ASSEMBLY THICKNESS | 3 1/8" | 3 1/8" | 4 1/4" | 4 1/4" | 6 5/8" | 6 5/8" | 8 5/8" | 8 5/8" |
| | | NON-STRUCTURAL METAL FRAMING | 2 1/2" | 2 1/2" | 3 5/8" | 3 5/8" | 6" | 6" | 8" | 8" |
| | | SOUND-ATTENUATION BLANKETS | | REQ | | REQ | | REQ | REQ | REQ |
| | | UL DESIGN ASSEMBLY | | | | | | | | |
| | | FIRE RATING (IF REQUIRED BY CODE SHEET) | NR | NR | NR | NR | NR | NR | NR | NR |
| | | STC RATING | | | | 34 | | 37 | | |

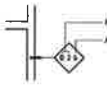
## ABOVE CEILING CONDITION (SECTION)

b



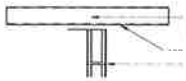

## PARTITION GENERAL NOTES

THE FOLLOWING PARTITION GRAPHIC SYMBOL AND THREE PART NOTATION SYSTEM IS USED IN THE CONSTRUCTION DOCUMENTS FOR THIS PROJECT NOTE THE PARTITION CONSTRUCTION WILL MAINTAIN ITS DESIGNATION TO THE POINT OF AN INTERSECTING PARTITION IF NO CHANGE IN DESIGNATION IS SHOWN BEYOND THE INTERSECTION THE PREVIOUS PARTITION CONSTRUCTION DESIGNATION APPLIES REFER TO CODE PLAN G-101 FOR RATED WALLS




- WHERE SOUND-ATTENUATION BLANKETS ARE SCHEDULED
  1. INSTALL ACOUSTICAL SEALANT AT ALL PENETRATIONS PER MANUFACTURER'S INSTRUCTIONS AT TOP AND BOTTOM OF WALLS (BOTH SIDES)
  2. PUTTY PADS AT ALL WALL PENETRATIONS INCLUDING ELECTRIC OUTLETS IT BACK BOXES
- ALL ASSEMBLY THICKNESSES LISTED IN THE PARTITION TYPES ARE BASED ON 5/8" THICK GYPSUM BOARD ALTERNATE GYPSUM BOARD THICKNESSES WILL HAVE A DIFFERENT ASSEMBLY THICKNESS
- WHERE RATED ASSEMBLY EXTENDS TO STRUCTURE ABOVE PROVIDE UL APPROVED FIRE RATED HEAD OF WALL ASSEMBLY TO MATCH RATING OF WALL WALL HEIGHTS EXCEEDING STUD MANUFACTURER'S MAXIMUM (LIMITING) SPAN USING SPSF LATERAL LOADING SHALL BE BRACED TO STRUCTURE ABOVE (LAY-IN CEILINGS ARE NOT ACCEPTABLE BRACING HARD CEILINGS ARE ACCEPTABLE)
- "STRUCTURE ABOVE" (AS NOTED IN THE PARTITION CONDITIONS) IS DEFINED AS THE UNDERSIDE OF ONE OR MORE OF THE FOLLOWING
  - COMPOSITE FLOOR SLAB
  - STAIR TREADS/RISERS
  - METAL ROOF DECK
  - STEEL BEAMS
- IN NO CASE SHALL THE BOTTOM OF STEEL JOISTS BE CONSIDERED BOTTOM OF STRUCTURE ABOVE
- NR = NOT RATED

## PARTITION TERMINATION AT DECK

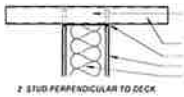




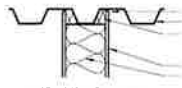





2A PERPENDICULAR ELEVATION




2 STUD PERPENDICULAR TO DECK




1 STUD PARALLEL TO DECK

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**Interior Partition Schedule**

**A-002**

10/31/2023 2:09:57 PM

## INTERIOR MATERIAL LEGEND

| | MARK | DESCRIPTION | MANUFACTURER | STYLE/COLLECTION | COLOR | REMARKS |
|---|---|---|---|---|---|---|
| **09 51 23 - ACOUSTIC TILE CEILINGS** | | | | | | |
| | ACT1 | ACOUSTIC CEILING TILE (FIELD) | REFERENCE SPECIFICATION SIZE: 24" X 48" | REFERENCE SPECIFICATION | WHITE | OFFICE CEILING |
| **09 65 13 - RESILIENT BASE AND ACCESSORIES** | | | | | | |
| | RB1 | RESILIENT BASE 4" COVE | ROPPE | | ROPPE 123 CHARCOAL | TYP ALL GYP BOARD LOCATIONS |
| **09 77 23 - DECORATIVE FIBERGLASS REINFORCED WALL PANELS** | | | | | | |
| | FRP1 | FIBER REINFORCED PLASTIC PANELS | MARLITE | STANDARD FRP - PEBBLED | MARLITE MEDIUM GREY | TYP JAN CLOSET LOCATIONS |
| | FRP2 | FIBER REINFORCED PLASTIC PANELS | MARLITE | RECTANGLE HORIZONTAL - 6" X 3" TILE CONFIGURATION | BLACK WITH WHITE GROUT LINES SS125-863 (VERTICAL) | TYP RESTROOM LOCATIONS AND BREAK ROOM BACKSPLASH |
| **09 91 23 - INTERIOR PAINTING** | | | | | | |
| | PT1 | PAINT | SHERWIN WILLIAMS | | SW 7008 PEARLY WHITE | TYP ALL GYP BOARD LOCATIONS |
| | SCN1 | SEALED CONCRETE | SHERWIN WILLIAMS | REFERENCE SPECIFICATION | CLEAR | TYP ALL CONCRETE FLOOR SURFACES |
| **09 93 00 - STAINING AND TRANSPARENT FINISHING** | | | | | | |
| | TPF1 | TRANSPARENT FINISH | SHERWIN WILLIAMS | REFERENCE SPECIFICATION | CLEAR COAT | TYP ALL PLYWOOD LOCATIONS |
| **10 26 00 - WALL AND DOOR PROTECTION** | | | | | | |
| | CG1 | CORNER GUARD | CS ACROVYN | REFERENCE SPECIFICATION | ACROVYN #934 PEARL | |
| **12 32 16 - PLASTIC LAMINATE CASEWORK** | | | | | | |
| | PLAM1 | PLASTIC LAMINATE CASEWORK | WILSONART | | FAIRCHILD 8238 | |
| | SS1 | SOLID SURFACE COUNTERTOPS | CORIAN DESIGN | | CORIAN DEEP NOCTURNE | |

## GENERAL FINISH NOTES

**FLOORS:**
- A GROUND LEVEL FLOORS SHALL RECEIVE (SCN1) UNO
- B STORAGE MEZZANINE SHALL RECEIVE (TPF1) UNO

**BASE:**
- A BASE SHALL BE (RB1) UNO

**WALLS:**
- A DRYWALL WALLS SHALL BE PAINTED (PT1) UNO
- B RESTROOM WALLS SHALL RECEIVE (FRP2) FROM FLOOR TO CEILING
- C JANITOR CLOSETS SHALL RECEIVE (FRP1) FROM FLOOR TO 4'-0" AFF ON ALL WET WALLS. WALLS SHALL BE PAINTED (PT1) ABOVE
- D LOADING BAY WALLS TO RECEIVE PLYWOOD TO 12' - 0" AFF. PLYWOOD TO RECEIVE (TPF1) UNO
- E MEZZANINE WALLS TO RECEIVE PLYWOOD TO 4' - 0" AFF. PLYWOOD TO RECEIVE (TPF1) UNO

**CEILINGS:**
- A ACOUSTICAL CEILING SHALL BE (ACT1) UNO
- B DRYWALL CEILINGS SHALL BE PAINTED (PT1) UNO

**MILLWORK:**
- A UPPER AND LOWER MILLWORK SHALL BE (PLAM1) UNO
- B COUNTERTOPS SHALL BE (PLAM1) UNO

**MISCELLANEOUS:**
- A DOOR AND WINDOW TRIM SHALL BE (PT#)
- B HANDRAILS SHALL BE (PT2)
- C PAINTED DOORS SHALL BE (PT#) UNO.

## GENERAL NOTES

- A REFER TO ACCESSIBILITY STANDARDS SHEETS FOR TYPICAL MOUNTING HEIGHTS/LOCATIONS FOR TOILET ROOM ACCESSORIES
- B ALL INTERIOR WALLS ARE A5a UNLESS NOTED OTHERWISE. REFER TO SHEET A-502 FOR INTERIOR PARTITION SCHEDULE
- C DIMENSIONS ARE TO FACE OF STUD, CMU, OR CENTERLINE OF STRUCTURE UNO
- D COORDINATE WITH MEP DRAWINGS FOR LOCATIONS OF FIXTURES. LOCATE AS SHOWN ON ARCHITECTURAL PLANS AND DETAILS. NOTIFY ARCHITECT OF CONFLICTS PRIOR TO CONSTRUCTION
- E CENTER DEVICES IN CEILING TILES UNO
- F REFER TO INTERIOR ELEVATIONS AND ROOM FINISH SCHEDULE FOR ADDITIONAL INFORMATION CONCERNING HEIGHTS, CEILING MATERIALS AND FURRED CEILINGS
- G AT LOCATIONS OF PERFORATED RETURN AIR GRILLES, WIRING, CABLING ETC. TO BE HELD CLEAR OF OPEN LINE OF SIGHT THROUGH GRILLE. IN CASES WHERE THIS IS UNAVOIDABLE, ITEMS VISIBLE ABOVE GRILLE ARE TO BE PAINTED FLAT BLACK

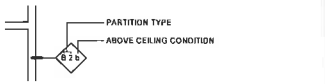
## KEY NOTES

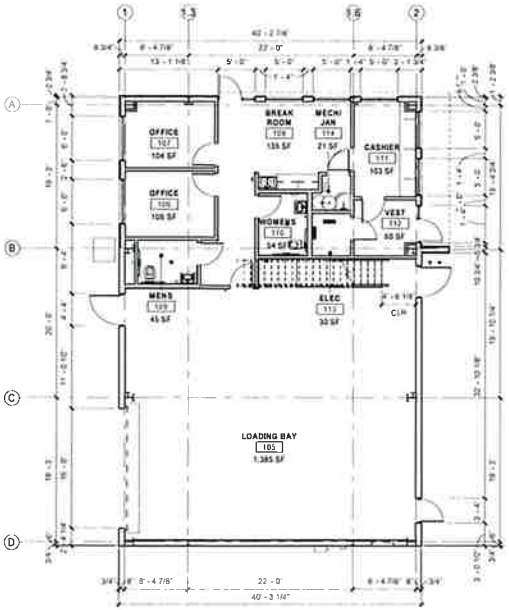
AS INDICATED BY (#)

| | |
|---|---|
| 104 | REMOVABLE GUARD RAIL SECTION |
| 105 | METAL PAN CONCRETE FILLED STAIRS |
| 106 | MECH LOUVER. REF MECH |
| 427 | OH COILING DR. AS SCHED |
| #85 | GUARD RAIL |
| 831 | MECH EQUIP. REF MECH |

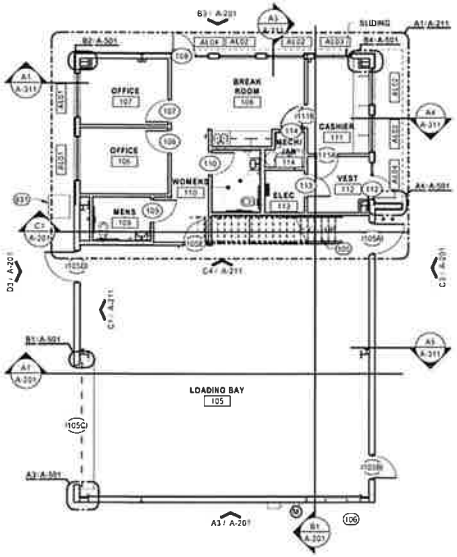
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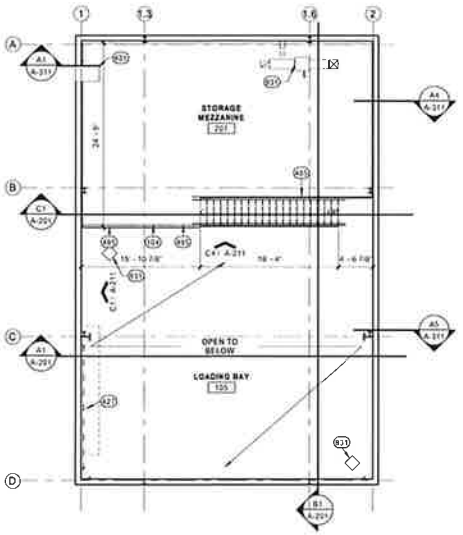



A1 DIMENSIONED PLAN - 1ST FLOOR 1/8" = 1'-0"




A2 ANNOTATED PLAN - 1ST FLOOR 1/8" = 1'-0"




A4 ANNOTATED/DIMENSIONED PLAN - MEZZANINE 1/8" = 1'-0"

WEST SITE PLAN NORTH | NORTH SITE PLAN NORTH

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1 10/31/2023 Issue for Proposal
# DATE DESCRIPTION

**Annotated & Dimensioned Plans**

**A-111**

## GENERAL NOTES

A. DIMENSIONS ARE TO FACE OF STUD, CMU, OR CENTERLINE OF STRUCTURE UNO
B COORDINATE WITH MEP DRAWINGS FOR LOCATIONS OF FIXTURES LOCATE AS SHOWN ON ARCHITECTURAL PLANS AND DETAILS. NOTIFY ARCHITECT OF CONFLICTS PRIOR TO CONSTRUCTION
C FINAL SPRINKLER HEAD LOCATIONS SHALL BE SET BY FIRE PROTECTION ENGINEER AND APPROVED BY ARCHITECT
D CENTER DEVICES, SPRINKLER HEADS, ETC. IN CEILING TILES UNO
E CEILING HEIGHTS SHALL BE 9'-0" ABOVE FINISHED FLOOR UNO
F REFER TO INTERIOR ELEVATIONS AND ROOM FINISH SCHEDULE FOR ADDITIONAL INFORMATION CONCERNING HEIGHTS, CEILING MATERIALS AND FURRED CEILINGS
G AT LOCATIONS OF PERFORATED RETURN AIR GRILLES, WIRING, CABLING ETC. TO BE HELD CLEAR OF OPEN LINE OF SIGHT THROUGH GRILLE. IN CASES WHERE THIS IS UNAVOIDABLE, ITEMS VISIBLE ABOVE GRILLE ARE TO BE PAINTED FLAT BLACK

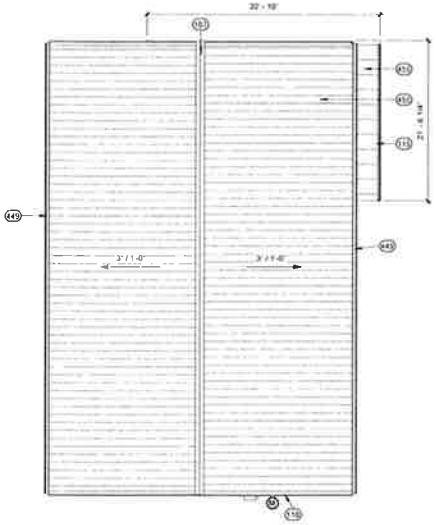
## KEY NOTES

AS INDICATED BY (#)

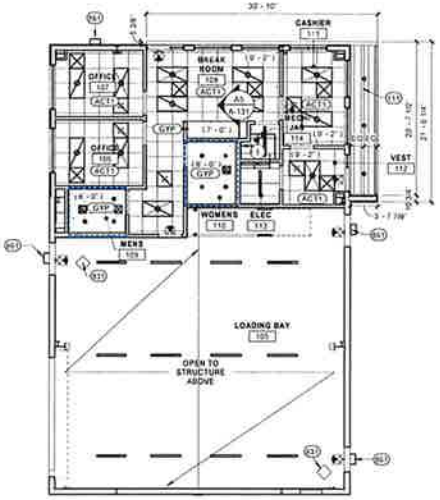
107 METAL ROOF RIDGE TRIM
110 PREFIN MTL RAKE TRIM
111 PREFIN MTL SOFFIT PANEL
115 CONCEALED GUTTER
449 MTL GUTTER
450 MTL ROOFING
831 MECH EQUIP. REF MECH
861 LIGHT FIXTURE, REF ELECT

## LEGEND

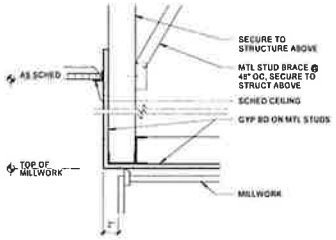
GYPSUM WALL BOARD CEILING
LAY-IN CEILING
MTL SOFFIT
DENOTES SOUND INSULATION



A1 ROOF PLAN
1/8" = 1'-0"




A3 REFLECTED CEILING PLAN
1/8" = 1'-0"




A5 CEILING DETAIL
1 1/2" = 1'-0"

0 4' 8' 16' WEST SITE PLAN NORTH NORTH SITE PLAN NORTH

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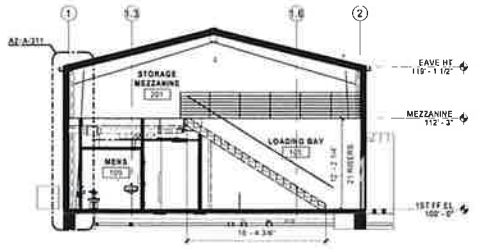
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Midland, TX

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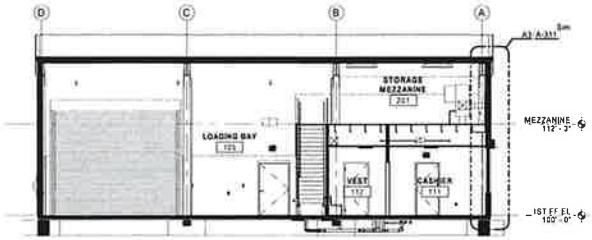
| # | DATE | DESCRIPTION |
|---|---|---|
| 1 | 10/31/2023 | Issue for Proposal |

**Reflected Ceiling Plan & Roof Plan**

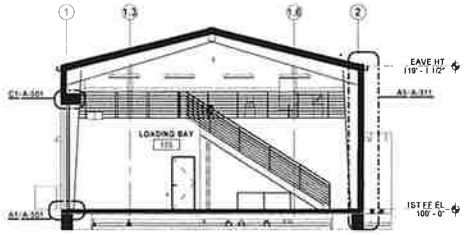
**A-131**



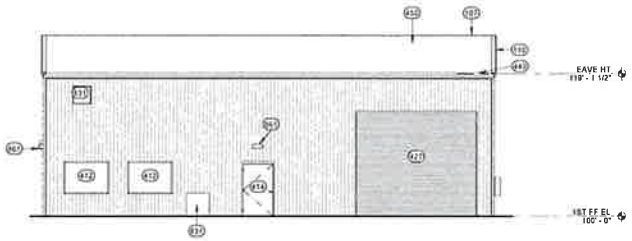

C1 BUILDING SECTION



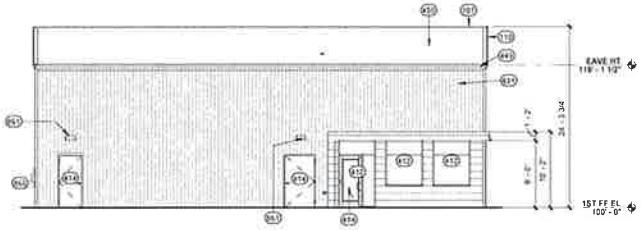

B1 BUILDING SECTION




A1 BUILDING SECTION



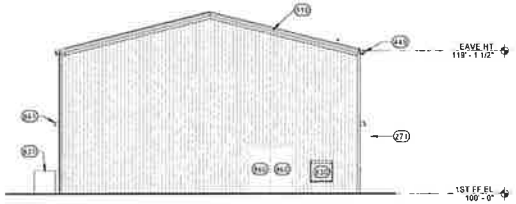

D3 WEST ELEVATION




C3 EAST ELEVATION




B3 NORTH ELEVATION




A3 SOUTH ELEVATION

## GENERAL NOTES

A PAINT ALL GYP BOARD WALLS IN FIELD. REF PROJECT MANUAL
B FINISH ALL EXPOSED PLYWOOD IN FIELD. REF PROJECT MANUAL
C VERIFY DIMENSIONS

## KEY NOTES

AS INDICATED BY (#) --

| | |
|---|---|
| 107 | METAL ROOF RIDGE TRIM |
| 110 | PREFIN MTL RAKE TRIM |
| 271 | MTL PANEL SYSTEM TYPE B |
| 412 | ALUM STORE FRONT & GLAZING, AS SCHED |
| 414 | DOOR, AS SCHED |
| 427 | GH CEILING DR, AS SCHED |
| 449 | MTL GUTTER |
| 450 | MTL ROOFING |
| 830 | REF MECH |
| 831 | MECH EQUIP, REF MECH |
| 860 | REF ELECT |
| 861 | LIGHT FIXTURE, REF ELECT |

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**Citizen Collection Stations**

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City of Midland

300 North Loraine
Midland, TX

PROJECT NO.
611921 - WEST
400522 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

**Exterior Elevations & Building Sections**

**A-201**

## KEY NOTES

AS INDICATED BY ( # )

| | |
|---|---|
| 101 | UNDERCOUNTER REFRIGERATOR OFCI |
| 109 | UNDERCOUNTER ICE MAKER OFCI |
| 112 | ALUMINUM SUPPORT BRACKET |
| 113 | COUNTERTOP |
| 114 | CONTROL JOINT |
| 124 | OPEN SHELF |
| 132 | CANE DETECTION |
| 552 | FEB |
| 600 | GRAB BAR (GB) |
| 602 | COMBINATION PAPER TOWEL DISPENSER/WASTE RECEPTACLE (PTDWR) |
| 603 | PAPER TOWEL DISPENSER (PTD) |
| 607 | TLT TISSUE DISPENSER (TTD-1) |
| 612 | MIRROR (MI) |
| 666 | CORNER GUARD |

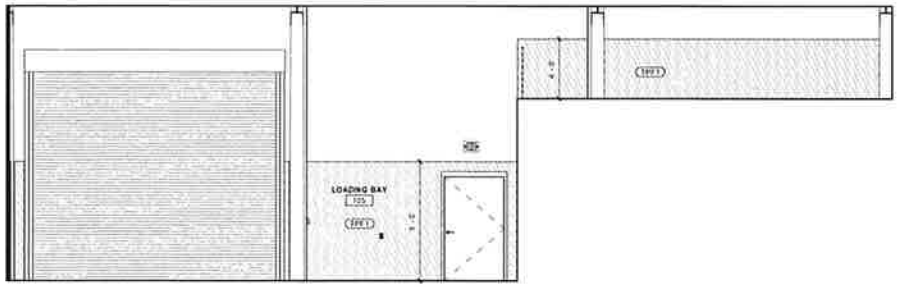
## GENERAL NOTES

A PAINT ALL GYP BOARD WALLS IN FIELD. REF PROJECT MANUAL
B FINISH ALL EXPOSED PLYWOOD IN FIELD. REF PROJECT MANUAL
C VERIFY DIMENSIONS

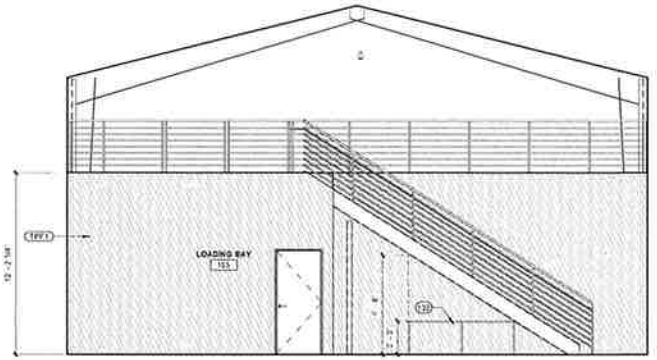
## PARTITION GENERAL NOTES

THE FOLLOWING PARTITION GRAPHIC SYMBOL AND THREE PART NOTATION SYSTEM IS USED IN THE CONSTRUCTION DOCUMENTS FOR THIS PROJECT NOTE: THE PARTITION CONSTRUCTION WILL MAINTAIN ITS DESIGNATION TO THE POINT OF AN INTERSECTING PARTITION. IF NO CHANGE IN DESIGNATION IS SHOWN BEYOND THE INTERSECTION, THE PREVIOUS PARTITION CONSTRUCTION DESIGNATION APPLIES. REFER TO CODE PLAN G-101 FOR RATED WALLS

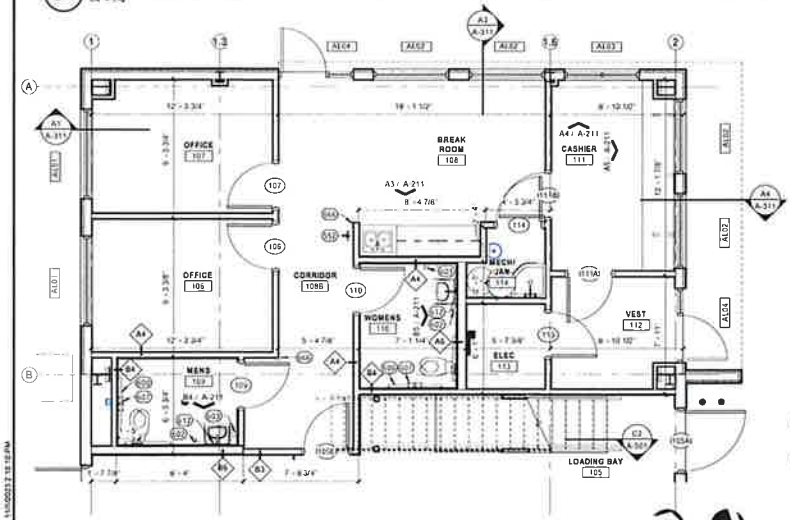


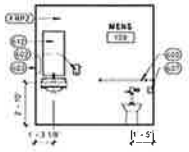

C1 INTERIOR ELEVATION
1/4" = 1'-0"



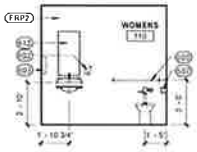

C4 INTERIOR ELEVATION
1/4" = 1'-0"



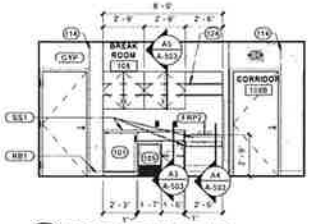

A1 ENLARGED PLAN
1/4" = 1'-0"



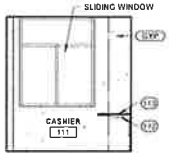

B4 INTERIOR ELEVATION
1/4" = 1'-0"



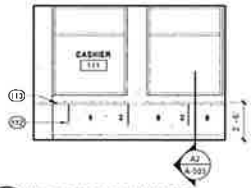

B5 INTERIOR ELEVATION
1/4" = 1'-0"




A3 INTERIOR ELEVATION
1/4" = 1'-0"




A4 INTERIOR ELEVATION
1/4" = 1'-0"




A5 INTERIOR ELEVATION
1/4" = 1'-0"

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# Citizen Collection Stations

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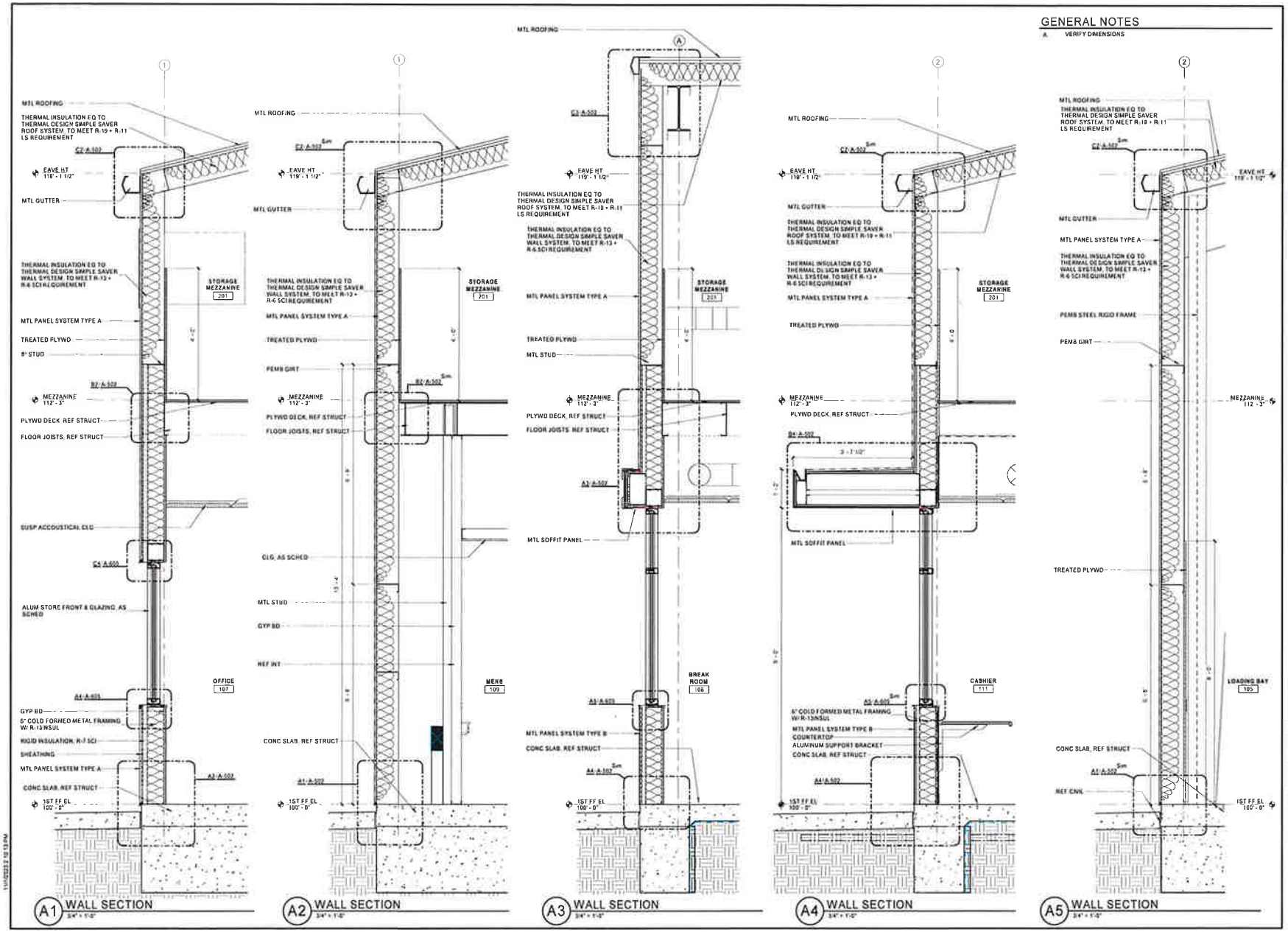
300 North Loraine
Midland, TX

PROJECT NO.
6115.21 - WEST
49015.22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| 1 | 10/31/2023 | Issue for Proposal |

**Interior Elevations & Enlarged Plans**

**A-211**




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**Citizen Collection Stations**

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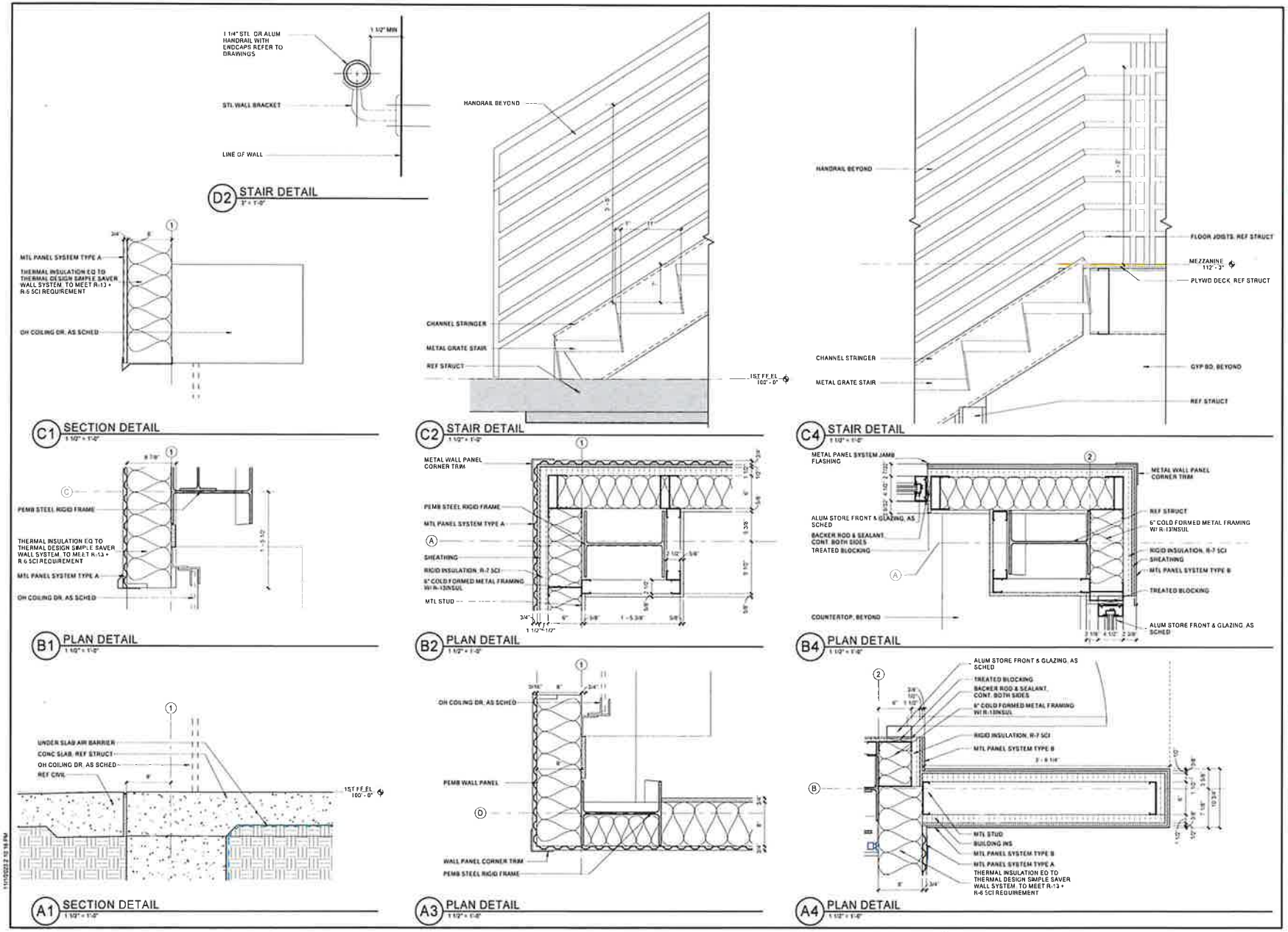
300 North Loraine
Midland, TX

PROJECT NO.
611921 - WEST
40015 22 - NORTH

| DATE | DESCRIPTION |
|---|---|
| 10/31/2023 | Issue for Proposal |

**Wall Sections**

**A-311**




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**Citizen Collection Stations**

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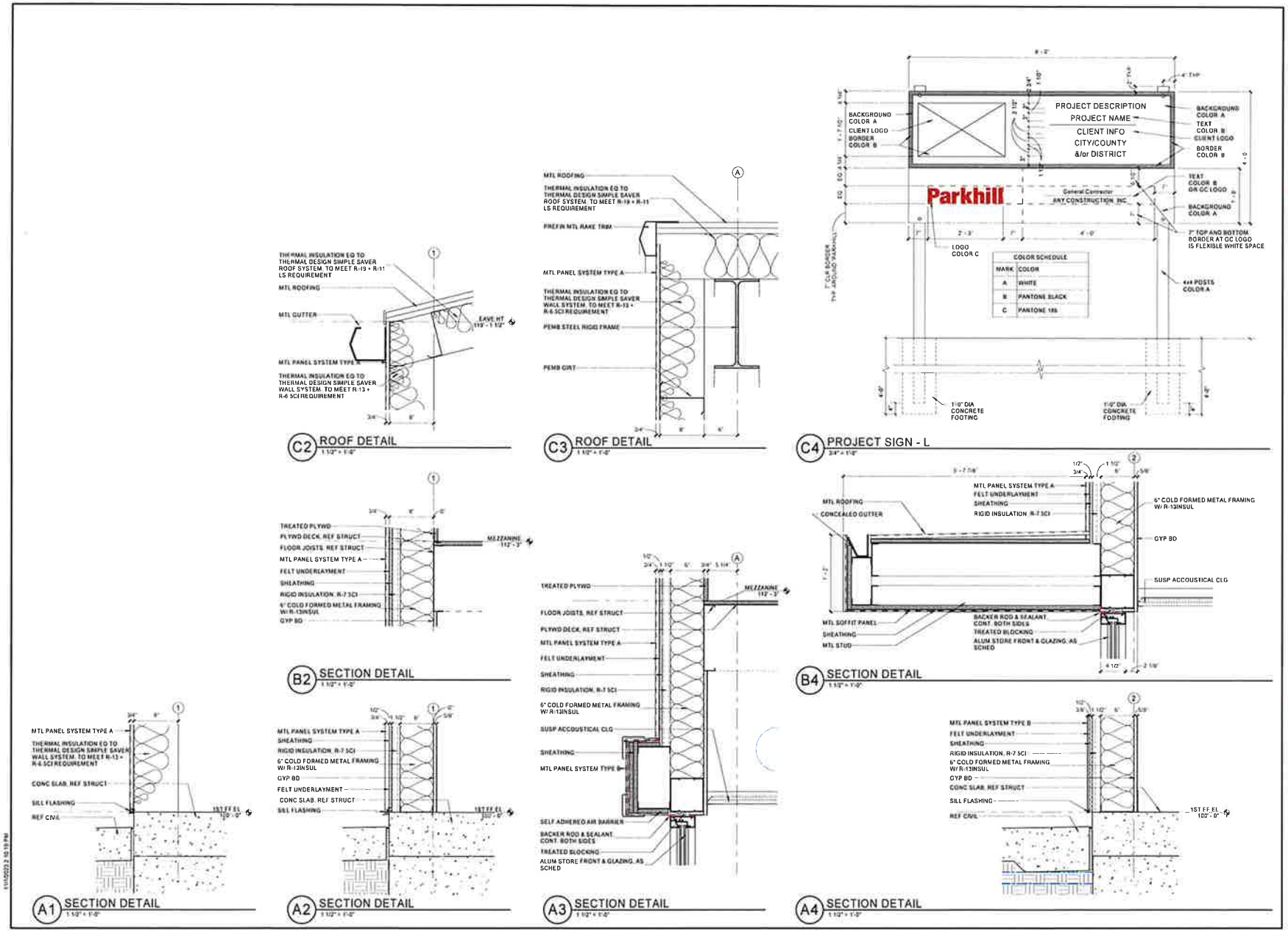
300 North Loraine
Midland, TX

PROJECT NO.
611921 - WEST
452013.22 - NORTH

| | DATE | DESCRIPTION |
|---|---|---|
| 1 | 10/31/2023 | Issue for Proposal |

**Details**

**A-501**




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**Citizen Collection Stations**

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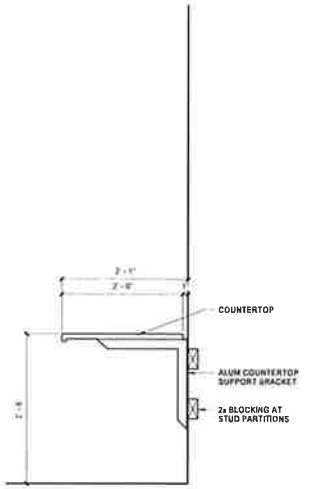
300 North Loraine
Midland, TX

PROJECT NO.
611921 - WEST
402113.22 - NORTH

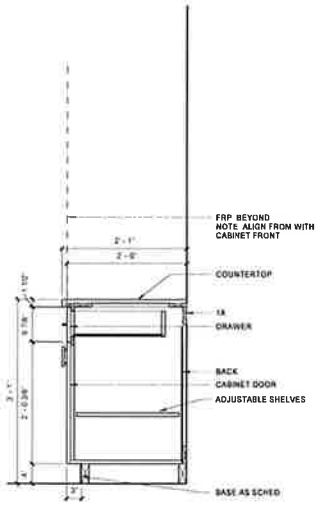
| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

**Details**

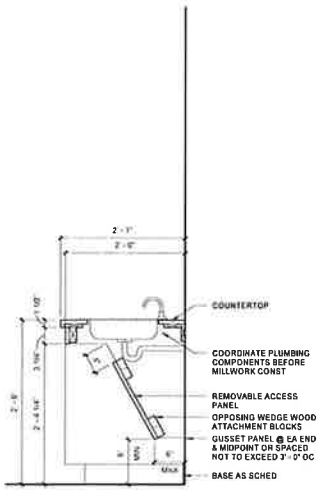
**A-502**



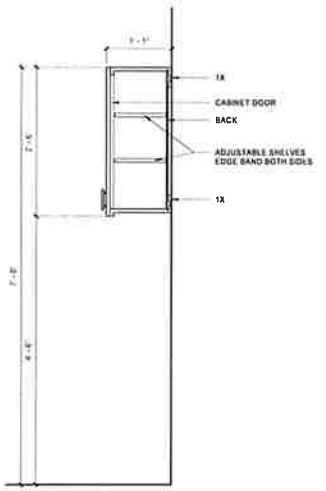

A2 MILLWORK SECTION




A3 MILLWORK SECTION




A4 MILLWORK SECTION




A5 MILLWORK SECTION

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**Citizen Collection Stations**

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|---|---|---|
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**Details**

**A-503**

## DOOR SCHEDULE

| MARK | PR | DOOR WIDTH[1] | DOOR WIDTH[1] | DOOR HEIGHT[1] | DOOR CONST[2] | DOOR TYPE[3] | DOOR GLAZING | FIRE RATING | FRAME CONST[4] | FRAME SIZE[4] | DETAILS[5] HEAD | DETAILS[5] JAMB | DETAILS[5] SILL | REMARKS[6] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 105A | | 4' - 0" | | 7' - 0" | HMPF | F | - | | HM01 | 6" | B1IA-605 | A1IA-605 | | M9 |
| 105B | | 3' - 0" | | 7' - 0" | HMPF | F | - | | HM02 | 6" | B1IA-605 | A1IA-605 | | M8 |
| 105C | | 16' - 0" | | 14' - 0" | ALUM | OH2 | - | | OVHD | - | C1IA-501 | B1IA-601 | A1IA-601 | |
| 105D | | 4' - 0" | | 7' - 0" | HMPF | F | - | | HM02 | 8" | B1IA-601 | A1IA-601 | | M8 |
| 105E | | 3' - 0" | | 7' - 0" | HMPF | F | - | | HM01 | 5 1/4" | B3IA-605 | A3IA-605 | | M8 |
| 106 | | 3' - 0" | | 7' - 0" | PLAM | F | - | | HM01 | 5 7/8" | B3IA-605 | A3IA-605 | | M8 |
| 107 | | 3' - 0" | | 7' - 0" | PLAM | F | - | | HM01 | 5 7/8" | B3IA-605 | A3IA-605 | | M8 |
| 108 | | 3' - 0" | | 7' - 0" | ALUM | A1 | G12 | | ALUM | - | - | - | | M8 |
| 109 | | 3' - 0" | | 7' - 0" | PLAM | F | - | | HM01 | 5 7/8" | B3IA-605 | A3IA-605 | | |
| 110 | | 3' - 0" | | 7' - 0" | PLAM | F | - | | HM01 | 5 7/8" | B3IA-605 | A3IA-605 | | |
| 111A | | 3' - 0" | | 7' - 0" | PLAM | F | - | | HM01 | 5 7/8" | B3IA-605 | A3IA-605 | | M8 |
| 111B | | 3' - 0" | | 7' - 0" | PLAM | F | - | | HM01 | 5 7/8" | B3IA-605 | A3IA-605 | | |
| 112 | | 3' - 0" | | 7' - 0" | ALUM | A1 | G12 | | ALUM | - | - | - | | |
| 113 | | 3' - 0" | | 7' - 0" | PLAM | F | - | | HM01 | 5 7/8" | B3IA-605 | A3IA-605 | | M8 |
| 114 | | 3' - 0" | | 7' - 0" | PLAM | F | - | | HM01 | 5 7/8" | B3IA-605 | A3IA-605 | | M8 |

## DOOR SCHEDULE FOOTNOTES X=EXISTING

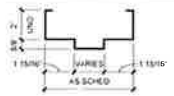
1. DOOR SIZE (INDICATED IN INCHES)
   SIZE INDICATED IS NOMINAL. REDUCTION SHALL BE MADE FOR THRESHOLD & EDGE CLEARANCES. ALL DOORS ARE 1 3/4" THICK UNO
2. DOOR CONSTRUCTION/VENEER (## = REF TO I-001)
   - SCTF = SOLID CORE WOOD, TRANSPARENT FINISH
   - SCPF = SOLID CORE WOOD, PAINT FINISH
   - SCLP = SOLID CORE WOOD, LAMINATED PLASTIC COVER
   - SCIR = SOLID CORE WOOD, IMPACT RESISTANT
   - HM = HOLLOW METAL
   - HMLP = HOLLOW METAL, LAMINATED PLASTIC COVER
   - HMPF = HOLLOW METAL, PAINT FINISH
3. DOOR TYPE
   REFER TO DOOR TYPE SCHEDULE
4. FRAME CONSTRUCTION
   REFER TO DOOR FRAME SCHEDULES
   - HM = HOLLOW METAL
   - HMPF = HOLLOW METAL, PAINT FINISH
   - ALUM = ALUMINUM
   - WDTF = SOLID WOOD, TRANSPARENT FINISH
   - WDPF = SOLID WOOD, PAINT FINISH
5. DETAIL # — ← A1/A-701 → — SHEET #
   - * = SIMILAR
6. REMARKS
   MISCELLANEOUS (GENERAL NOTES)
   - M1 = VERIFY ROUGH OPENINGS
   - M2 = DOOR TRIM TO MATCH EXISTING
   - M3 = LEAD LINED DOOR & FRAME
   - M4 = VERIFY FINISH OPENING SIZE
   - M5 = PROVIDE HOSPITAL STOP ON FRAME. SEE STANDARD DOOR DETAILS (THIS SHEET)
   - M6 = CASED OPENING FRAME
   - M7 = SEE STANDARD DOOR DETAILS (THIS SHEET) FOR DOOR HEAD / TRANSOM PANEL DETAILS
   - M8 = CARD READER
7. TRANSOM
   - T1 = WOOD TRANSOM TO MATCH DOOR SIZE AS NOTED
   - T2 = HOLLOW METAL TRANSOM TO MATCH EXISTING

**NOTE: QUANTITIES HERE ARE FOR A SINGLE BUILDING, MODIFY AS NECESSARY TO MEET BOTH BUILDINGS**

## GLAZING SCHEDULE

| MARK | TYPE |
|---|---|
| G12 | LOW-E COATED TINTED INSULATING GLASS |

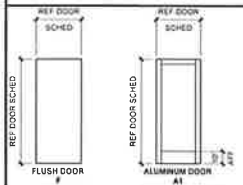
## STANDARD DOOR DETAILS



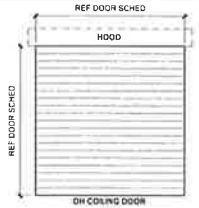

STANDARD FRAME

## DOOR TYPE SCHEDULE

NOTE: DOOR LITE OPENINGS ARE TO LITE FRAME INTERIOR OPENING (DAYLIGHT OPENING). RIGHT EDGE OF SWING DOOR IS STRIKE EDGE. THIS LEGEND TAKES PRECEDENCE OVER OTHER DRAWINGS




## OVERHEAD DOOR TYPE SCHEDULE




## HOLLOW METAL FRAME SCHEDULE

HM03 NOTE: FRAME FACES ARE 2" UNO




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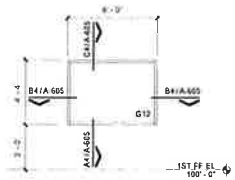
PROJECT NO.
619 21 - WEST
400 15 22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| 1 | 10/31/2023 | Issue for Proposal |

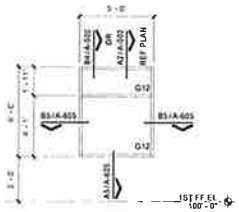
**Door & Glazing Schedule**

**A-601**

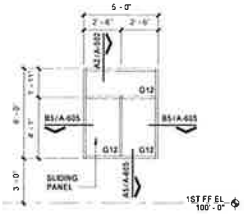
## ALUMINUM FRAME SCHEDULE AL00 NOTE: FRAME FACES ARE 2" UNO



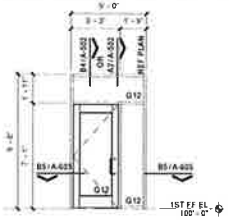

AL01




AL02




AL03

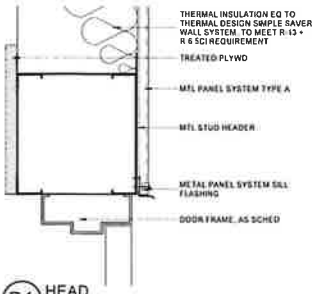



AL04

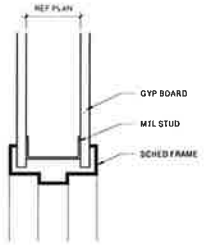
**NOTE: QUANTITIES ON FLOOR PLAN ARE FOR A SINGLE BUILDING, MODIFY AS NECESSARY TO MEET BOTH BUILDINGS**

### GENERAL NOTES

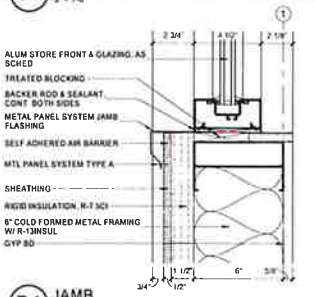
A 2" ALUMINUM FRAME SCHEDULE NOTES AS NEEDED




B1 HEAD 3" = 1'-0"



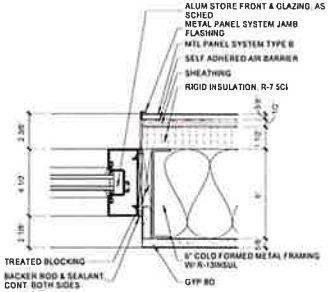

B3 HEAD 3" = 1'-0"



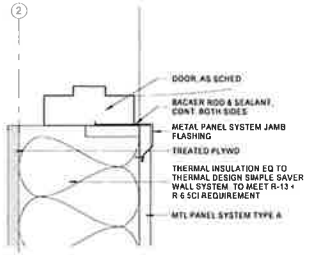

C4 HEAD 3" = 1'-0"



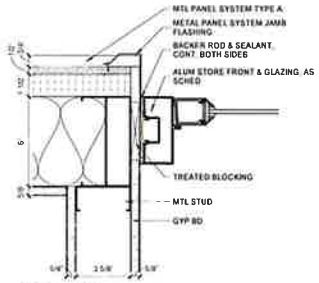

B4 JAMB 3" = 1'-0"



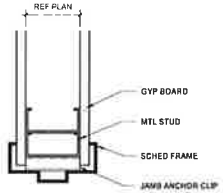

B5 JAMB 3" = 1'-0"



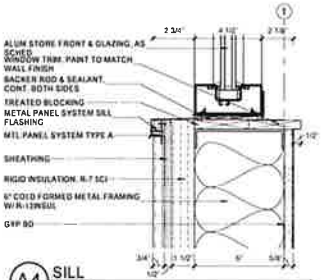

A1 JAMB 3" = 1'-0"



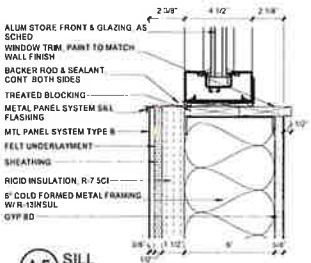

A2 JAMB 3" = 1'-0"




A3 JAMB 3" = 1'-0"




A4 SILL 3" = 1'-0"




A5 SILL 3" = 1'-0"

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**Citizen Collection Stations**

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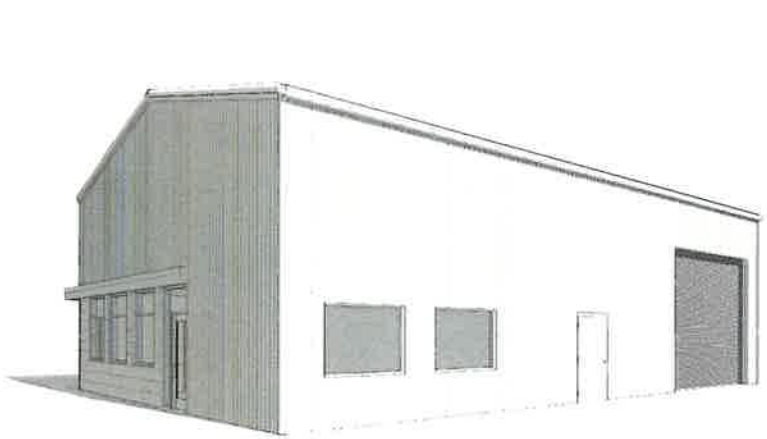
300 North Loraine
Midland, TX

PROJECT NO.
5119.21 - WEST
4001S.22 - NORTH

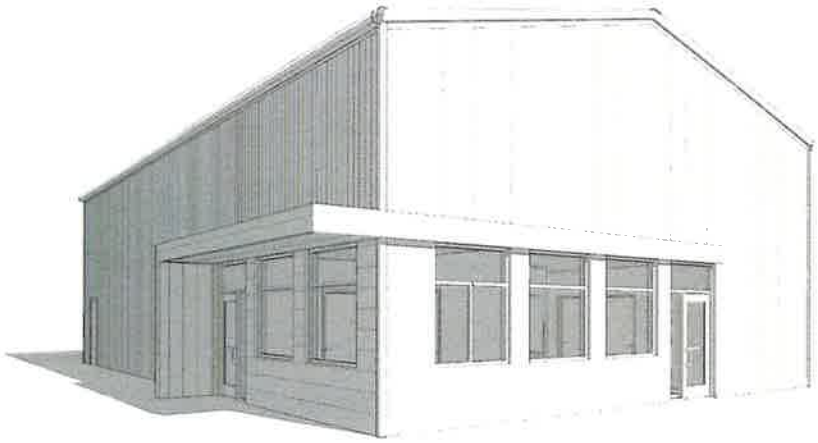
| # | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | Issue for Proposal |

**Aluminum Frame Schedule & Opening Details**

**A-605**



A1 NORTH WEST EXTERIOR VIEW
NTS



A4 NORTH EAST EXTERIOR VIEW
NTS

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300 North Loraine
Midland, TX

PROJECT NO
6118 21 - WEST
40015 22 - NORTH

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**3D Views**

**A-901**

## GENERAL NOTES

1. GENERAL NOTES ON THIS SHEET ARE APPLICABLE TO EACH MECHANICAL DRAWING OF THIS SET OF CONSTRUCTION DOCUMENTS. NOTES SPECIFIC TO INDIVIDUAL MECHANICAL DRAWINGS WILL BE SHOWN ON THE RESPECTIVE MECHANICAL DRAWING.
2. THE CONTRACTOR SHALL PROVIDE A COMPLETE HVAC SYSTEM TO INCLUDE ALL LABOR MATERIALS, TOOLS AND EQUIPMENT FOR A COMPLETE AND FUNCTIONAL SYSTEM INCLUDING ALL NECESSARY APPURTENANCES CUSTOMARILY INCLUDED IF NOT SPECIFICALLY CALLED OUT.
3. ENTIRE INSTALLATION, INCLUDING MATERIALS, EQUIPMENT AND WORKMANSHIP SHALL CONFORM WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS.
4. THIS PROJECT SHALL CONFORM TO APPLICABLE ASHRAE, NFPA AND SMACNA STANDARDS AND OTHER REGULATORY BODIES HAVING JURISDICTION OVER THE CLASS OF WORK.
5. MATERIAL AND EQUIPMENT SHALL HAVE STAMPS OR SEALS OF AHRI, ASME, UL OR ASTM.
6. THE CONTRACTOR SHALL MAKE TESTS FOR ACCEPTANCE AND APPROVAL AS REQUIRED BY CODE AND THE REQUIREMENTS OF APPLICABLE REGULATORY AGENCIES. REQUIRED TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER OF RECORD AND/OR OWNER UNLESS OTHERWISE WAIVED IN WRITING.
7. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, LICENSES, DOCUMENTS AND SERVICES RELATED TO INSTALLATION OF THE WORK.
8. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE OTHER TRADES IN ORDER TO RESOLVE ANY CONFLICTS THAT MIGHT ARISE DUE TO THE LOCATION OF EQUIPMENT OR THE USE OF SPACE.
9. EQUIPMENT OF DIFFERENT ELECTRICAL CHARACTERISTICS MAY BE FURNISHED PROVIDED SUCH PROPOSED EQUIPMENT IS APPROVED IN WRITING AND CONNECTING ELECTRICAL SERVICE, CIRCUIT BREAKERS AND CONDUIT ARE APPROPRIATELY MODIFIED AT NO COST TO THE OWNER.
10. RUN ALL HORIZONTAL PIPING AND DUCTWORK ABOVE THE CEILING UNLESS OTHERWISE NOTED.
11. MAKE DUCT PENETRATIONS OF ALL WALLS WITH SHEET METAL DUCTS. FLEXIBLE DUCT PENETRATION OF WALLS ARE NOT ACCEPTABLE.
12. INSTALL TURNING VANES WHERE SHOWN ON PLANS.
13. DO NOT INSTALL EQUIPMENT, PIPING OR DUCTWORK OVER ANY ELECTRICAL EQUIPMENT OR ELECTRICAL SERVICE SPACE.
14. LAYOUT OF PIPING AND DUCTWORK IS DIAGRAMMATIC. RUN ALL EXPOSED PIPING AND DUCTWORK AS HIGH AS POSSIBLE UNLESS OTHERWISE NOTED. ALLOW FOR RISES, DROPS AND OFFSETS AS REQUIRED.
15. INSTALL MECHANICAL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE AND REPAIR OR REPLACEMENT OF ELECTRICAL COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH A MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS. PIPING SHALL NOT INTERFERE WITH FILTER PULL.
16. MECHANICAL CONTRACTORS SHALL PROVIDE AUTOMATIC CONTROL DEVICES SUCH AS STARTERS, VARIABLE FREQUENCY DRIVES (VFD), TEMPERATURE SENSORS, RELAYS, AND PRESSURE SWITCHES THAT ARE ASSOCIATED WITH MECHANICAL EQUIPMENT AND ASSOCIATED CONTROL WIRING FROM CONTROL POWER LOCATION TO THE CONTROL DEVICE. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND WIRING FROM POWER SOURCE TO DISCONNECT SWITCH, FROM DISCONNECT SWITCH TO STARTER OR VFD, AND FROM STARTER OR VFD TO THE EQUIPMENT.
17. FLASHING DETAILS FOR PIPES PENETRATING THE ROOF SHALL BE COORDINATED WITH ARCHITECTURE DETAILS.
18. LOCATE TEMPERATURE SENSORS AND CO2 SENSORS 48" ABOVE FINISHED FLOOR OR AS NOTED ON PLANS.
19. COORDINATE CURBS AND SIZE OF CURBS IN ACCORDANCE WITH ACTUAL EQUIPMENT PURCHASED.
20. CONTRACTOR IS TO PROVIDE AN ADJUSTABLE ROOF CURB OR TAPER AT CURB TO MATCH ROOF SLOPE FOR CURB MOUNTED EQUIPMENT. THE USE OF SHIMS TO LEVEL EQUIPMENT IS NOT ACCEPTABLE UNLESS THE CURB DIMENSIONS ARE SMALLER THAN 36" x 36".
21. CONTRACTOR TO VERIFY ALL ACCESS PANEL LOCATIONS. NOT ALL ACCESS PANELS REQUIRED ARE SHOWN. REFER TO SPECIFICATIONS FOR ACCESS PANEL REQUIREMENTS.
22. CONTRACTOR SHALL INSTALL ALL PLUMBING VENTS AND EXHAUST AIR OUTLETS A MINIMUM OF 10'-0" AWAY (PER CODE) FROM ALL OUTSIDE AIR INTAKES, OPERABLE DOORS AND/OR WINDOWS. CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC BY NATURE. FINAL MEASUREMENTS SHOULD BE MADE AT THE PROJECT SITE.
23. NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED.

## SYMBOL LEGEND

- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- P/T PLUG
- VENTURI FLOW METER
- AUTOMATIC FLOW CONTROL
- BUTTERFLY VALVE
- BALL VALVE
- CHECK VALVE
- GLOBE VALVE
- GATE VALVE
- ANGLE GATE VALVE
- PRESSURE REDUCING VALVE
- AUTOMATIC VALVE, 2-WAY
- AUTOMATIC VALVE, 3-WAY
- FLANGE
- UNION
- STRAINER
- GAS METER
- AUTOMATIC AIR VENT
- ELECTRIC MOTOR
- CENTRIFUGAL FAN
- THERMOMETER
- EXPANSION VALVE
- FLOW SWITCH
- PRESSURE SWITCH
- PUMP

## PIPING SYMBOLS

- CHS — CHILLED WATER SUPPLY
- CHR — CHILLED WATER RETURN
- HWS — HEATING WATER SUPPLY
- HWR — HEATING WATER RETURN
- CS — CONDENSING WATER SUPPLY
- CR — CONDENSING WATER RETURN
- CD — CONDENSATE DRAIN
- R — REFRIGERANT LIQUID & SUCTION
- FLUID FLOW DIRECTION
- PIPE TURNED UP
- PIPE TURNED DOWN

## MECHANICAL/PLUMBING ABBREVIATIONS

| | |
|---|---|
| A/C | AIR CONDITIONING |
| AVG | AVERAGE |
| AFF | ABOVE FINISHED FLOOR |
| BOJ | BOTTOM OF JOIST |
| BTUH | BRITISH THERMAL UNIT PER HOUR |
| MBU | BRITISH THERMAL UNIT DIVIDED BY 1,000 |
| CFM | CUBIC FEET PER MINUTE |
| CHR | CHILLED WATER RETURN PIPING |
| CHS | CHILLED WATER SUPPLY PIPING |
| CR | CONDENSING WATER RETURN PIPING |
| CS | CONDENSING WATER SUPPLY PIPING |
| DEG | DEGREE |
| °F | DEGREES FAHRENHEIT |
| DIA | DIAMETER |
| ID | DIAMETER, INSIDE |
| OD | DIAMETER, OUTSIDE |
| DDC | DIRECT DIGITAL CONTROLS |
| DB | DRY BULB TEMPERATURE |
| EER | ENERGY EFFICIENCY RATIO |
| EAT | ENTERING AIR TEMPERATURE |
| EWT | ENTERING WATER TEMPERATURE |
| EA | EXHAUST AIR |
| ET | EXPANSION TANK |
| ESP | EXTERNAL STATIC PRESSURE |
| FT | FEET |
| FPI | FINS PER INCH |
| FD | FIRE DAMPER |
| FSD | FIRE/SMOKE DAMPER |
| FO | FLAT OVAL |
| GAL | GALLONS |
| GPD | GALLONS PER DAY |
| GPH | GALLONS PER HOUR |
| GPM | GALLONS PER MINUTE |
| GBD | GRAVITY BACKDRAFT DAMPER |
| HWP | HEATING WATER PUMP |
| HWR | HEATING WATER RETURN PIPING |
| HWS | HEATING WATER SUPPLY PIPING |
| HP | HORSEPOWER |
| HUM | HUMIDITY |
| IN | INCHES |
| "HG | INCHES OF MERCURY |
| "H2O | INCHES OF WATER |
| IAQ | INDOOR AIR QUALITY |
| kW | KILOWATT |
| LAT | LEAVING AIR TEMPERATURES |
| LWT | LEAVING WATER TEMPERATURES |
| MBD | MANUAL BALANCING DAMPER |
| MAT | MIXED AIR TEMPERATURE |
| NC | NORMALLY CLOSED |
| NO | NORMALLY OPEN |
| OA | OUTSIDE AIR |
| OAT | OUTSIDE AIR TEMPERATURE |
| PH | PHASE |
| LBS | POUNDS |
| LBS/HR | POUNDS PER HOUR |
| PSI | POUNDS PER SQUARE INCH |
| PRV | PRESSURE REDUCED VALVE |
| RL | REFRIGERANT LIQUID |
| RS | REFRIGERANT SUCTION |
| RPZ | REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY |
| RH | RELATIVE HUMIDITY |
| RA | RELIEF AIR |
| RPM | REVOLUTIONS PER MINUTE |
| SEER | SEASONAL ENERGY EFFICIENCY RATIO |
| SH | SENSIBLE HEAT |
| SHR | SENSIBLE HEAT RATIO |
| SD | SMOKE DAMPER |
| SQ FT | SQUARE FEET |
| SP | STATIC PRESSURE |
| TSP | TEMPERATURE AND PRESSURE VALVE |
| k | THERMAL CONDUCTIVITY |
| R | THERMAL RESISTANCE |
| TOJ | TOP OF JOIST |
| TDH | TOTAL DYNAMIC HEAD |
| TSP | TOTAL STATIC PRESSURE |
| UF | UNDERFLOOR |
| UG | UNDERGROUND |
| U | U-FACTOR: HEAT TRANSFER COEFFICIENT |
| VAV | VARIABLE AIR VOLUME |
| VFD | VARIABLE FREQUENCY DRIVE |
| VEL | VELOCITY |
| V | VOLTS |
| WB | WET BULB TEMPERATURE |

## DUCTWORK SYMBOLS

- MANUAL BALANCING DAMPER
- CEILING MOUNTED SUPPLY GRILLE
- CEILING MOUNTED RETURN GRILLE
- CEILING MOUNTED EXHAUST GRILLE
- WALL MOUNTED SUPPLY GRILLE
- WALL MOUNTED RETURN/EXHAUST GRILLE
- FIRE/SMOKE DAMPER
- FIRE DAMPER
- SMOKE DAMPER
- LINED RETURN DUCT
- SUPPLY DUCT TURNED UP
- SUPPLY DUCT TURNED DOWN
- RETURN DUCT TURNED UP
- RETURN DUCT TURNED DOWN
- EXHAUST DUCT TURNED UP
- EXHAUST DUCT TURNED DOWN
- ROUND DUCT TURNED UP
- ROUND DUCT TURNED DOWN
- (T) THERMOSTAT
- (H) HUMIDISTAT
- (S) SENSOR
- FLEXIBLE CONNECTION
- FLEX DUCT
- CONNECT TO EXISTING
- POD — POINT OF DISCONNECT

## PROJECT DESIGN INFORMATION

| | | |
|---|---|---|
| HVAC DATA | | |
| PROJECT LOCATION | | MIDLAND, TX |
| DESIGN CODE | | IMC - 2015/IECC - 2015 |
| ELEVATION (FT) | | 2803 |
| HVAC DESIGN CONDITIONS | | |
| | WINTER OUTDOOR (DB/WB) | 22.8°F/20.5°F |
| | WINTER INDOOR (DB/WB) | 70°F/62.0°F |
| | SUMMER OUTDOOR (DB/WB) | 102.5°F/66.1°F |
| | SUMMER INDOOR (DB/WB) | 75°F/62.5°F |
| | INDOOR RELATIVE HUMIDITY | 50% |
| | DEHUMIDIFICATION OUTDOOR (DB/WB) | 77.0°F/71.2°F |
| ELECTRICAL SERVICE | | 240/1PH |
| PLUMBING DATA | | |
| DESIGN CODE | | IPC - 2015 |
| WATER REQUIREMENTS | | |
| | TOTAL WATER FIXTURE COUNT | 30 |
| | TOTAL WATER GPM | 45 |
| SEWER REQUIREMENTS | | |
| | TOTAL SEWER FIXTURE COUNT | 29 |
| | TOTAL SEWER GPM | 14.5 |

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300 North Loraine
Midland, TX

PROJECT NO.
611921 - WEST
40015.22 - NORTH

| | DATE | DESCRIPTION |
|---|---|---|
| - | 10/31/2023 | ISSUE FOR PROPOSAL |

Mechanical Abbreviations & Legends

M-001

## GENERAL NOTES

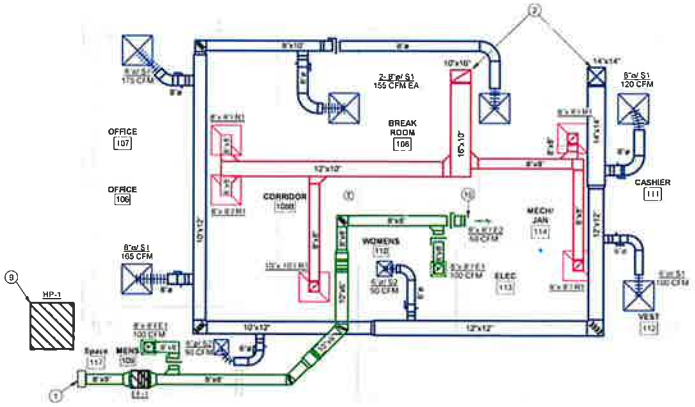
A REFER TO GENERAL NOTES ON M-001
B ALL INFORMATION SHOWN APPLIES TO 2 DIFFERENT BUILDINGS

## KEY NOTES

AS INDICATED BY ⓪

1 PROVIDE 8" EXHAUST CAP 10'-8" ABOVE GROUND
2 UP THRU MEZZANINE FLOOR TO CEILING SPACE. SEE M-111 A1 FOR CONTINUATION
3 CENTER OF LOUVER AT 3'-0" ABOVE FINISHED FLOOR
4 DOWN THRU MEZZANINE FLOOR TO CEILING SPACE. SEE M-111 A3 FOR CONTINUATION
5 BOTTOM OF UNIT HEATER SHALL BE AT 12'-0" ABOVE FINISHED FLOOR
6 CENTER OF FAN AT 4'-0" ABOVE MEZZANINE FINISHED FLOOR
7 PROVIDE LABELED WALL SWITCH TO OPERATE EF-2. L-1 SHALL OPEN WHEN EF-2 IS RUNNING. COORDINATE LOUVER INTERLOCK WITH ELECTRICAL CONTRACTOR
8 PROVIDE 8" SUPPLY CAP 14'-9" ABOVE GROUND
9 HEAT PUMP TO BE MOUNTED ON CONCRETE EQUIPMENT PAD. REFER TO MANUFACTURER FOR DETAIL
10 MOUNT 8"x8" SIDEWALL GRILL 10'-6" A.F.F.
11 BC-1 SHALL BE INSTALLED ON MEZZANINE FINISHED FLOOR




STORAGE 201

LOADING BAY-2 105-2

LOADING BAY-1 105-1

A1 MECHANICAL PLAN - MEZZANINE
1/4" = 1'-0"

WEST SITE PLAN NORTH

NORTH SITE PLAN NORTH

A3 MECHANICAL PLAN - FIRST FLOOR
1/4" = 1'-0"

WEST SITE PLAN NORTH

NORTH SITE PLAN NORTH

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| 1 | 10/31/2023 | ISSUE FOR PROPOSAL |

**Mechanical Plan**

**M-111**

## BLOWER COIL SCHEDULE

| SYMBOL | TYPE | EXTERNAL S.P. (in W.G.) | BLOWER MOTOR HP/ DRIVE | TOTAL CFM | OUTSIDE AIR CFM | COOLING | | | | | HEATING | | ELECTRICAL | | | | WEIGHT, LBS | MANUFACTURER | INDOOR UNIT MODEL NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | MINIMUM TOTAL CAPACITY, MBH | MINIMUM SENSIBLE CAPACITY, MBH | ENTERING MIXED AIR TEMPERATURE, DB / WB, F | MINIMUM COOLING SEER | OUTDOOR AMBIENT TEMPERATURE, F | MINIMUM TOTAL CAPACITY AT 47F, MBH | MIXED ENTERING AIR TEMPERATURE, F | MINIMUM EFFICIENCY, HSPF | VOLTAGE | PHASE | MCA | MOCP | | | |
| BC-1 | UNITARY SPLIT SYSTEM | 0.53 | 0.5 | 1050 CFM | 150 | 34 k | 24.2 | 78.5/66.5 42 | 14.00 | 102 | 32.4 | 63.53 | 8.2 | 230 V | 1 | 5 | 15 | 155 lb | TRANE | TEM9A3C |

## HEAT PUMP SPLIT SYSTEM SCHEDULE

| SYMBOL | SERVES | ELECTRICAL | | | | TYPE OF REFRIGERANT | MANUFACTURER | MODEL NO. |
|---|---|---|---|---|---|---|---|---|
| | | VOLTAGE | PHASE | MCA | MOCP | | | |
| HP-1 | BC-1 | 230 V | 1 | 18 | 30 | R-410 | TRANE | 4TWR4036 |

NOTES
1. SCHEDULED UNITS ARE MANUFACTURED BY TRANE CARRIER AND LENNOX ARE CONSIDERED EQUIVALENT
2. EXTERNAL STATIC PRESSURE INCLUDES DUCTWORK DAMPERS AND AIR DEVICES PRESSURE DROP FOR WET COIL AND FILTERS IS CONSIDERED AS INTERNAL PRESSURE DROP
3. COOLING CAPACITIES AND SEER/EER RATINGS ARE COMBINATION RATINGS WITH OUTDOOR UNITS CAPACITIES ARE RATED AT ENTERING AIR TEMPERATURE AND AMBIENT AS LISTED SEER RATINGS ARE AT AHRI CONDITIONS AIRFLOW CONDITIONS ARE RATED AT LOCAL ALTITUDE
4. EACH OUTDOOR UNIT SHALL BE EQUIPPED WITH A HIGH PRESSURE SWITCH HARD START KIT ON SINGLE PHASE UNI ANTI-SHORT CYCLE TIMER SERVICE VALVES AND INDOOR BLOWER RELAY KIT
5. ELECTRICAL CONTRACTOR IS TO PROVIDE AND INSTALL ALL DISCONNECTS FOR EACH DEVICE IN THE SPLIT SYSTEM PACKAGE ELECTRICAL CONTRACTOR IS TO MAKE ALL CONNECTS AS PER DIVISION 16 SPECIFICATIONS
6. EACH SYSTEM SHALL BE PROVIDED WITH AN ELECTRONIC PROGRAMMABLE NIGHT SETBACK THERMOSTAT WITH ONE STAGE OF COOLING AND 2 STAGES OF HEATING MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL THE THERMOSTAT AS PER DIVISION 16 SPECIFICATIONS FOR RUNNING WIRE AND CONDUIT

## COMBINATION LOUVER/DAMPER SCHEDULE

| SYMBOL | SERVES | LOUVER FUNCTION | WIDTH | HEIGHT | MAX FACE VELOCITY | MIN FREE AREA | AIRFLOW | FRAME TYPE | ACTUATOR VOLTAGE | FAIL POSITION | BIRDSCREEN | INSECT SCREEN | MANUFACTURER | MODEL NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L-1 | EF-2 | INTAKE | 36" | 24" | 750 FPM | 2.70 FT^2 | 2035 CFM | CHANNEL | 120 V | CLOSED | YES | NO | GREENHECK | EACC-601 |

NOTES
1. UNITS ARE SCHEDULED TO BE MANUFACTURED BY GREENHECK RUSKIN AND CESCO ARE CONSIDERED EQUIVALENT
2. COORDINATE FRAME TYPE WITH ARCHITECT COORDINATE EXACT SIZE WITH ARCHITECTURAL DETAILS AND CMU BLOCK OR BRICK DIMENSIONS
3. COORDINATE LOUVER COLOR WITH ARCHITECT
4. INTERLOCK LOUVER TO OPEN WHEN EF-2 IS OPERATED

## EXHAUST FAN SCHEDULE

| SYMBOL | TYPE | CFM | DRIVE | E.S.P. (in W.G.) | SOUND LEVEL IN SONES | FAN MOTOR POWER - HP | NOMINAL FAN RPM | ELECTRICAL | | METHOD OF CONTROL | WEIGHT, LBS | MANUFACTURER | MODEL NO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | VOLTAGE | PHASE | | | | |
| EF-1 | IN LINE | 250 CFM | DIRECT | 0.32 | 6.8 | 1/10 | 1485 | 115 V | 1 | NOTE 7 | 30 | GREENHECK | SQ-85-VG |
| EF-2 | SIDEWALL PROP | 2035 CFM | DIRECT | 0.3 | 13.9 | 1/2 | 867 | 115 V | 1 | SWITCH | 186 | GREENHECK | AER-24/VG |

NOTES
1. FANS ARE SCHEDULED TO BE MANUFACTURED BY GREENHECK TWIN CITY AND COOK ARE CONSIDERED EQUIVALENT MANUFACTURERS
2. AIRFLOW CONDITIONS RATED AT LOCAL ALTITUDE
3. PROVIDE AND INSTALL FLEXIBLE CONNECTION ON FAN INLET DUCT CONNECTION
4. FANS SHALL HAVE MOTOR VIBRATION ISOLATION BACK DRAFT DAMPER AT UNIT AND LOCAL DISCONNECT SWITCH AT UNIT
5. FAN SELECTIONS SHALL BE SUBMITTED TO ALLOW FOR A MINIMUM +/- 10% IN SCHEDULED EXTERNAL STATIC AND CFM WITHIN THE PARAMETERS OF THE SCHEDULED MOTOR HP
6. PROVIDE EF-2 WITH WALL COLLAR 45°WEATHERHOOD WITH BIRDSCREEN GRAVITY OPERATED DAMPER AND INTERIOR WALL HOUSING WITH GAURD
7. EF-1 SHALL BE CONTROLLED USING WALL MOUNTED OCCUPANCY SENSORS IN MENS 109 AND WOMENs 110 COORDINATE WITH ELECTRICAL CONTRACTOR

## AIR DISTRIBUTION SCHEDULE

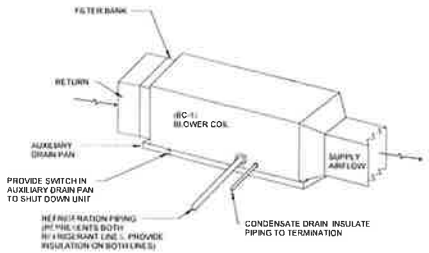
| SYMBOL | SYSTEM TYPE | DESCRIPTION | INSTALLATION TYPE | MANUFACTURER | MODEL NO. |
|---|---|---|---|---|---|
| S1 | SUPPLY | ALL STEEL, 24" x 24" NOMINAL FACE, FIXED AIR PATTERN, STEPPED WITH 4-CONES, SQUARE FACE AND ROUND NECK, SIZE NECK AS SHOWN ON DRAWINGS | LAY-IN/SURFACE MOUNT | NAILOR | RNS |
| S2 | SUPPLY | ALL STEEL, 12" x 12" NOMINAL FACE, FIXED AIR PATTERN, STEPPED WITH 4-CONES, SQUARE FACE AND ROUND NECK, SIZE NECK AS SHOWN ON DRAWINGS | LAY-IN/SURFACE MOUNT | NAILOR | RNS |
| R1 | RETURN | EGGCRATE RETURN GRILLE, 24"x 24" NOMINAL FACE, STEEL BORDER WITH ALUMINUM 1/2"x1/2"x1/2" CORE, SIZE NECK AS SHOWN ON DRAWINGS | LAY-IN/SURFACE MOUNT | NAILOR | 81EC |
| E1 | EXHAUST | EGGCRATE EXHAUST GRILLE, 12"x 12" NOMINAL FACE, ALL ALUMINUM 1/2" x 1/2" x 1/2" CORE, SIZE NECK AS SHOWN ON DRAWINGS | LAY-IN/SURFACE MOUNT | NAILOR | 51EC |
| E2 | EXHAUST | ALUMINUM, SIDEWALL EXHAUST GRILLE WITH FIXED HORIZONTAL BLADES 3/4" BLADE SPACING, SIZE NECK AS SHOWN ON DRAWINGS | SIDEWALL | NAILOR | S145H |

NOTES
1. AIR DEVICES SCHEDULED TO BE MANUFACTURED BY NAILOR PRICE, TITUS, AND RUSKIN ARE CONSIDERED EQUIVALENT MANUFACTURERS
2. UNLESS SCHEDULED OTHERWISE AIR DEVICES SHALL BE WHITE OR OFF-WHITE IN COLOR
3. ALL JOISTS, CONDUITS, PIPING AND EQUIPMENT ABOVE OPEN RETURN DEVICES SHALL BE PAINTED BLACK FOR AN AREA OF 2 FEET ON ALL SIDES OF THE AIR DEVICE
4. PROVIDE MANUAL BALANCING DAMPERS AT EACH SUPPLY AND EXHAUST AIR DUCT TAP INSTALL MBD AT MAIN DUCT TAP
5. PROVIDE INSULATING BLANKET ON BACK OF THE SUPPLY AND RETURN GRILLES

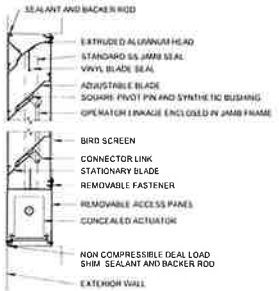
## ELECTRIC UNIT HEATER

| SYMBOL | AIR FLOW | TEMP RISE F | MINIMUM INPUT, kW | VOLTAGE | PHASE | WEIGHT, LBS | MANUFACTURER | MODEL NO |
|---|---|---|---|---|---|---|---|---|
| EUH-1 | 510 CFM | 18 | 3 | 240 V | 1 | 45 | REZNOR | EQH5AK2E |
| EUH-2 | 510 CFM | 18 | 3 | 240 V | 1 | 45 | REZNOR | EQH5AK2E |

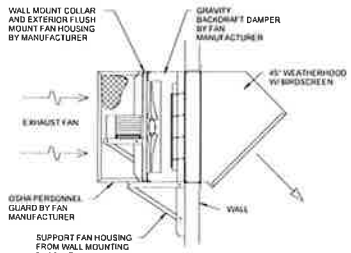
NOTES
1. UNITS ARE SCHEDULED TO BE MANUFACTURED BY REZNOR INDECCO MARKEL AND TRANE ARE CONSIDERED EQUIVALENT MANUFACTURERS OTHERS BY PRIOR APPROVAL
2. ELECTRICAL UNIT HEATER AS SCHEDULED SHALL HAVE BUILT-IN CONTROL TRANSFORMER OVERHEAT PROTECTION INTERNAL 24V THERMOSTAT AND MOUNTING BRACKET MOUNT THERMOSTAT TO BACK OF UNIT HEATER
3. MANUFACTURER TO PROVIDE A LOCAL DISCONNECT THAT IS TO BE FIELD INSTALLED



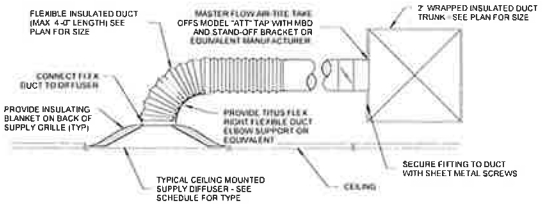

B2 BLOWER COIL DETAIL
NTS




A2 LOUVER DAMPER DETAIL
NTS




A3 EXHAUST PROP FAN WALL MOUNT DETAIL
NTS




A4 SUPPLY AIR DIFFUSER MOUNTING FLEX
NTS

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Mechanical Schedules

M-601

## PLUMBING FIXTURE MOUNTING HEIGHT

| * ALL DIMENSIONS ARE IN INCHES AND FROM FINISHED FLOOR | AGES 13 THROUGH ADULTS | |
|---|---|---|
| | ADA/TAS | STANDARD (4) |
| **WATER CLOSETS** | | |
| TOP OF SEAT | 17 - 19 MAX | 15 - 16 MAX |
| FLUSH CONTROLS (HANDLE HEIGHT) | 30 MAX | 30 MAX |
| **URINALS** | | |
| RIM OF BASIN | 17 MAX | 24 MAX |
| MINIMUM DEPTH (5) | 13 1/2 MIN | 13 1/2 MIN |
| FLUSH CONTROLS (HANDLE HEIGHT) | 44 MAX | 44 MAX |
| **LAVATORIES AND SINKS** | | |
| RIM (10) | 34 MAX | 34 MAX |
| KNEE CLEARANCE | 27 MIN | 27 MIN |
| FRONT EDGE TO WALL FAUCET HANDLE | 20 -25 MAX | 20 -25 MAX |
| **DRINKING FOUNTAINS AND ELECTRIC WATER COOLERS** | | |
| SPOUT OUTLETS | | |
| HEIGHT (LOW) | 36 MAX | --- |
| HEIGHT (HIGH) | 38 - 43 MAX | --- |
| DISTANCE FROM FRONT EDGE | 5 MAX | --- |
| **SHOWERS** | | |
| FIXED HEAD (NON MEDICAL APPLICATION) | 48 MAX | 60 |
| ADJUSTABLE HEAD (9) | 48 MAX | 60 |
| HOSE LENGTH | 59 MIN | --- |

NOTES

1. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR LOCATIONS OF PLUMBING FIXTURES. GRAB BARS, DISPENSERS, ETC. WITH RESPECT TO WALLS, STALLS, ETC.
2. ACCESSIBILITY GUIDELINES SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY, AND INTENDED TO SERVE AS A GUIDE FOR CONSTRUCTION PROFESSIONALS AND OWNERS.
3. SOME OF THE INFORMATION SHOWN HERE MAY NOT BE APPLICABLE TO THIS PROJECT.
4. STANDARD HEIGHT INFORMATION IS OBTAINED FROM ASPE (AMERICAN SOCIETY OF PLUMBING ENGINEERS). HEIGHTS NOT NOTED BY INFORMATION ON DRAWINGS.
5. DEPTH TO BE MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK OF THE FIXTURE.
6. KNEE CLEARANCE FOR LAVATORIES AND SINKS SHALL COMPLY WITH TAS.
7. REFER TO DETAIL FOR COUNTER MOUNTED SINKS WITH BUBBLERS FOR DIMENSIONS ON ARCHITECTURAL DRAWINGS.
8. DRINKING FOUNTAINS AND ELECTRIC WATER COOLER DISTANCES FROM FRONT EDGE INCLUDES BUMPERS. KNEE CLEARANCES MUST BE MAINTAINED THROUGH THE MIN./MAX. RANGE HEIGHT FOR THE SPOUT.
9. THE 30" SLIDE BAR SHALL BE MOUNTED AT A HEIGHT SO THE HAND HELD SHOWER WAND SHALL BE MOUNTED NO HIGHER THAN 48" ABOVE SHOWER FINISHED FLOOR.
10. THE CONTRACTOR SHALL COORDINATE WITH THE COUNTER TOP/BASE CABINET MANUFACTURER TO VERIFY THAT THE RIM OF THE LAVATORY/SINK IS INSTALLED AT NO MORE THAN THE MAXIMUM HEIGHT ALLOWED.

## GENERAL NOTES

1. GENERAL NOTES ON THIS SHEET ARE APPLICABLE TO EACH PLUMBING DRAWING OF THIS SET OF CONSTRUCTION DOCUMENTS. NOTES SPECIFIC TO INDIVIDUAL PLUMBING DRAWINGS WILL BE SHOWN ON THE RESPECTIVE PLUMBING DRAWING.
2. THE CONTRACTOR SHALL PROVIDE A COMPLETE PLUMBING SYSTEM TO INCLUDE ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT FOR A COMPLETE AND FUNCTIONAL SYSTEM INCLUDING ALL NECESSARY APPURTENANCES CUSTOMARILY INCLUDED IF NOT SPECIFICALLY CALLED OUT.
3. ENTIRE INSTALLATION, INCLUDING MATERIALS, EQUIPMENT AND WORKMANSHIP SHALL CONFORM WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS.
4. APPLICABLE STANDARDS AND REGULATORY BODIES HAVE JURISDICTION OVER THE CLASS OF WORK.
5. MATERIAL AND EQUIPMENT SHALL HAVE STAMPS OR SEALS OF AHRI, ASME, UL OR ASTM.
6. THE CONTRACTOR SHALL MAKE TESTS FOR ACCEPTANCE AND APPROVAL AS REQUIRED BY CODE AND THE REQUIREMENTS OF APPLICABLE REGULATORY AGENCIES. REQUIRED TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER OF RECORD AND/OR OWNER UNLESS OTHERWISE WAIVED IN WRITING.
7. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, LICENSES, DOCUMENTS AND SERVICES RELATED TO INSTALLATION OF THE WORK.
8. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE OTHER TRADES IN ORDER TO RESOLVE ANY CONFLICTS THAT MIGHT ARISE DUE TO THE LOCATION OF EQUIPMENT OR THE USE OF SPACE.
9. EQUIPMENT OF DIFFERENT ELECTRICAL CHARACTERISTICS MAY BE FURNISHED PROVIDED SUCH PROPOSED EQUIPMENT IS APPROVED IN WRITING AND CONNECTING ELECTRICAL SERVICE, CIRCUIT BREAKERS AND CONDUIT ARE APPROPRIATELY MODIFIED AT NO COST TO THE OWNER.
10. RUN ALL HORIZONTAL DOMESTIC COLD WATER, DOMESTIC HOT WATER AND VENT PIPING ABOVE THE CEILING UNLESS OTHERWISE NOTED.
11. MAKE PIPE PENETRATIONS OF ALL WALLS WITH SLEEVES AS NOTED IN THE SPECIFICATIONS.
12. DO NOT INSTALL EQUIPMENT, PIPING OR DUCTWORK OVER ANY ELECTRICAL EQUIPMENT OR ELECTRICAL SERVICE SPACE.
13. LAYOUT OF PIPING IS DIAGRAMMATIC. RUN ALL EXPOSED PIPING AS HIGH AS POSSIBLE UNLESS OTHERWISE NOTED. ALLOW FOR RISERS, DROPS AND OFFSETS AS REQUIRED.
14. EXTEND CONDENSATE DRAIN LINES AS INDICATED. ALL CONDENSATE DRAIN PIPING SHALL BE TRAPPED AND PITCHED DOWN IN DIRECTION OF FLOW A MINIMUM OF 1/8 INCH PER 1 FOOT.
15. INSTALL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE AND REPAIR OR REPLACEMENT OF ELECTRICAL COMPONENTS, AS MUCH AS PRACTICAL. CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH A MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS.
16. FLASHING DETAILS FOR PIPES PENETRATING THE ROOF SHALL BE COORDINATED WITH ARCHITECTURE DETAILS.
17. CONTRACTOR SHALL INSTALL ALL PLUMBING VENTS AND EXHAUST AIR OUTLETS A MINIMUM OF 10'-0" AWAY (PER CODE) FROM ALL OUTSIDE AIR INTAKES, OPERABLE DOORS AND/OR WINDOWS. CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC BY NATURE. FINAL MEASUREMENTS SHOULD BE MADE AT THE PROJECT SITE.
18. CONTRACTOR TO PROVIDE MEANS TO CLEAR CONDENSATE DRAIN LINE WITHOUT CUTTING THE DRAIN LINE.
19. NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED.

## PLUMBING ABBREVIATIONS

| | |
|---|---|
| AUX | AUXILIARY CONDENSATE DRAIN PIPING |
| AVG | AVERAGE |
| AFF | ABOVE FINISHED FLOOR |
| BOJ | BOTTOM OF JOIST |
| BTUH | BRITISH THERMAL UNIT PER HOUR |
| MBU | BRITISH THERMAL UNIT DIVIDED BY 1 000 |
| CD | CONDENSATE DRAIN PIPING |
| DEG | DEGREE |
| °F | DEGREES FAHRENHEIT |
| DIA | DIAMETER |
| ID | DIAMETER, INSIDE |
| OD | DIAMETER, OUTSIDE |
| DDC | DIRECT DIGITAL CONTROLS |
| DCW | DOMESTIC COLD WATER |
| DHW | DOMESTIC HOT WATER |
| DHWR | DOMESTIC HOT WATER RETURN |
| EWT | ENTERING WATER TEMPERATURE |
| ECW | EXISTING DOMESTIC COLD WATER |
| EHW | EXISTING DOMESTIC HOT WATER |
| EHWR | EXISTING DOMESTIC HOT WATER RETURN |
| ES | EXISTING SEWER |
| ET | EXPANSION TANK |
| FT | FEET |
| GAL | GALLONS |
| GPD | GALLONS PER DAY |
| GPH | GALLONS PER HOUR |
| GPM | GALLONS PER MINUTE |
| HP | HORSEPOWER |
| IN | INCHES |
| "HG | INCHES OF MERCURY |
| "H2O | INCHES OF WATER |
| kW | KILOWATT |
| LWT | LEAVING WATER TEMPERATURES |
| MPG | MEDIUM PRESSURE NATURAL GAS |
| G | NATURAL GAS |
| NC | NORMALLY CLOSED |
| NO | NORMALLY OPEN |
| PH | PHASE |
| LBS | POUNDS |
| PSI | POUNDS PER SQUARE INCH |
| PRV | PRESSURE REDUCED VALVE |
| RPZ | REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY |
| RPM | REVOLUTIONS PER MINUTE |
| SA | SHOCK ABSORBER / ARRESTOR |
| SQ FT | SQUARE FEET |
| T&P | TEMPERATURE AND PRESSURE VALVE |
| TOJ | TOP OF JOIST |
| TDH | TOTAL DYNAMIC HEAD |
| UF | UNDERFLOOR |
| UG | UNDERGROUND |
| VFD | VARIABLE FREQUENCY DRIVE |
| VEL | VELOCITY |
| VTR | VENT THROUGH ROOF |
| V | VOLTS |

## PIPING LEGEND

- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- DOMESTIC HOT WATER RETURN
- SEWER
- VENT
- —CD— CONDENSATE DRAIN
- —AUX— AUXILIARY DRAIN
- —G— NATURAL GAS
- —RD— ROOF DRAIN PIPING
- —OD— OVERFLOW DRAIN PIPING
- —A— MEDICAL AIR
- —NOX— NITROUS OXIDE
- —N— NITROGEN
- —O— OXYGEN
- —V— VACUUM
- —VAGD— WASTE ANESTHETIC GAS DISPOSAL
- INDICATES DEMOLITION
- FLUID FLOW DIRECTION
- PIPE TURNED UP
- PIPE TURNED DOWN

EXISTING PIPING IS INDICATED SAME AS ABOVE EXCEPT IN A LIGHTER PEN WEIGHT

## PLUMBING SYMBOL LEGEND

- BUTTERFLY VALVE
- BALL VALVE
- CHECK VALVE
- GATE VALVE
- PRESSURE REDUCING VALVE
- FLANGE
- UNION
- STRAINER
- PLUG VALVE
- GAS REGULATOR
- CONNECT TO EXISTING
- POINT OF DISCONNECT POD

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**Plumbing Abbreviations & Legends**

**P-001**

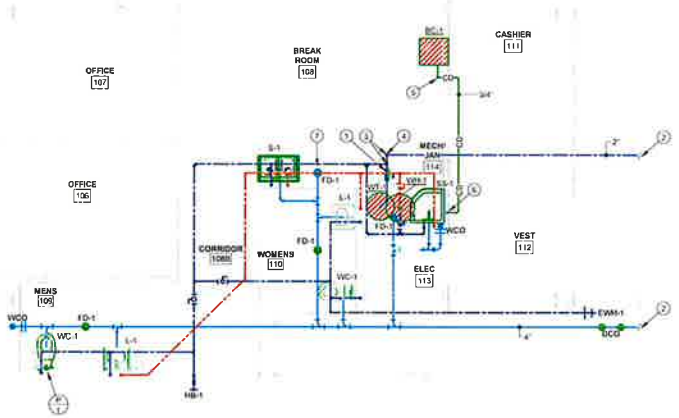
## GENERAL NOTES

A REFER TO GENERAL NOTES ON P-001
B ALL INFORMATION SHOWN ON THESE PLANS APPLIES TO 2 DIFFERENT BUILDINGS

## KEY NOTES

AS INDICATED BY ⓪ - ⑧

1 NEW RO SYSTEM TO SUPPLY ICE MACHINE AND S-1 S-1 SHALL HAVE RO MANUFACTURER PROVIDED SPIGOT RETROFITTED REFER TO MANUFACTURER FOR DETAIL.
2 REFER TO CIVIL FOR CONTINUATION OF LINES
3 ADD 2" BALL VALVE IN VERTICAL SEE P-111 P1 FOR DETAIL
4 TURN LINE UP INTO MECHJAN 114
5 DOWN THRU MEZZENINE FINISHED FLOOR TO CEILING SPACE
6 TURN 3/4" CONDENSATE PIPE DOWN IN WALL TO 18"A.F.F. TURN DRAIN LINE OUT OF WALL AND DOWN TO SPILL TO SERVICE SINK. PROVIDE ESCUTCHEON AT WALL PENETRATION
7 FLOOR DRAIN SHALL BE UNDER MILLWORK TO SERVICE UNDERCOUNTER ICE MAKER




A2 PLUMBING PLAN - WEST SITE
1/4" = 1'-0"

WEST SITE PLAN NORTH
NORTH SITE PLAN NORTH

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Plumbing Plan
P-111

## PLUMBING FIXTURE SCHEDULE

| SYMBOL | MINIMUM CONNECTIONS | | | | DESCRIPTION | MANUFACTURER | MODEL NO. | OPTIONS |
|---|---|---|---|---|---|---|---|---|
| | CW | HW | VENT | SEWER | | | | |
| WC-1 | 1" | – | 2" | 4" | FLOOR MOUNTED FLUSH VALVE WATER CLOSET, ELONGATED CHINA BOWL WITH EVERCLEAN , BOTTOM OUTLET, SIPHON JET FLUSHING ACTION, TOP SPUD, EXPOSED FLUSH VALVE WITH VANDAL RESISTANT STOP CAP, 1.28 GALLONS PER FLUSH. FLUSH HANDLE ON WIDE SIDE OF TOILET. EXTRA HEAVY DUTY OPEN FRONT WHITE SEAT WITH EVERCLEAN. 17" TO TOP OF RIM TO MEET ADULT TAS HEIGHT REQUIREMENTS. | AMERICAN STANDARD | 3461.001 "MADERA FLOWISE" | VALVE - SLOAN ROYAL 111-1.28<br>SEAT - AMERICAN STANDARD 5901.110T |
| L-1 | 1/2" | 1/2" | 1-1/2" | 1-1/2" | WALL MOUNTED TAS COMPLIANT LAVATORY, VITREOUS CHINA, NOMINAL 20" x 18", BACK AND SIDE SPLASHES. FOR CONCEALED ARM CARRIER. SINGLE CENTERED FAUCET HOLE. TAS COMPLIANT SINGLE LEVER FAUCET 0.5 GPM. DRAIN OUTLET WITH GRID STRAINER. REFER TO P-001 FOR TAS MOUNTING HEIGHTS. | AMERICAN STANDARD | 0356.421 LUCERNE | FAUCET - MOEN MOUNA 9417F05 (SINGLE LEVER)<br>CARRIER - WATTS TCA-411<br>DRAIN - AMERICAN STANDARD 7723.018 |
| S-1 | 1/2" | 1/2" | 1-1/2" | 1-1/2" | COUNTERTOP DOUBLE COMPARTMENT 30" x 21" SINK, 18 GAUGE 304 STAINLESS STEEL WITH A LUSTERTONE FINISH, REAR CENTER DRAIN PLACEMENT, FULL SPRAY SIDES AND BOTTOM, NOMINAL 13-1/2" x 16" BOWL, 6" DEEP. TAS COMPLIANT SINGLE HANDLE HIGH ARC PULLDOWN FAUCET, PULLOUT SPRAY WITH 68" BRAIDED HOSE, LEVER STYLE HANDLE, 1.5 GPM. DRAIN OUTLET WITH 304 STAINLESS STEEL BODY AND GRID STRAINER, POLISHED FINISH. | ELKAY | LRAD332160 | FAUCET - MOEN 7594<br>DRAIN - (QTY 2) ELKAY LK18B |
| SS-1 | 3/4" | 3/4" | 2" | 3" | FLOOR MOUNTED ENAMELED CAST IRON CORNER SERVICE SINK - 28"x28"x12". WITH WALL MOUNTED 8" CENTER FAUCET WITH VACUUM BREAKER, TOP BRACE, INTEGRAL STOPS, HOSE THREADED SPOUT, 12.96 GPM. PROVIDE 3" DRAIN OUTLET WITH DOME STRAINER, MOP HANGER, HOSE/BRACKET COMBINATION. PROVIDE THERMOSTATIC MIXING VALVE. | AMERICAN STANDARD | 7745.811 "FLORWELL" | FAUCET - T&S BRASS B-0045-BSTR<br>MOP HANGER - PROFLO PF 245<br>HOSE AND WALL HOOK- PROFLO PF296<br>SPLASH CATCHER PANELS - PROFLO PFWG245<br>MIXING VALVE: BRADLEY S56-461R |
| HB-1 | 3/4" | – | – | – | INTERIOR HOSE BIBB - ANTI-SIPHON VACUUM BREAKER, ROUGH BRASS FINISH, TEE HANDLE OR HAND WHEEL, 3/4" INLET WITH 3/4" THREADED OUTLET. PROVIDE APPROPRIATE ESCUTCHEON / FLANGE. | WOODFORD | 24 | (BR) |
| EWH-1 | 3/4" | – | – | – | EXTERIOR ENCASED NON-FREEZE WALL HYDRANT, DOUBLE CHECK BACKFLOW PROTECTION, CHROME BOX, ALL METAL CONSTRUCTION, STAINLESS STEEL OPERATING STEM AND ONE PIECE VALVE PLUNGER THAT CONTROLS FLOW AND DRAIN. | WOODFORD | Z67 | (CH) |
| FD-1 | – | – | 2" | AS SHOWN ON DWG | FLOOR DRAIN - 6" DIA. ADJUSTABLE POLISHED NICKEL BRONZE STRAINER, CAST IRON BODY WITH REVERSIBLE CLAMPING COLLAR. P-TRAP SHALL BE DEEP SEAL TYPE. COORDINATE FLOORING TYPE WITH ARCHITECTURE. | WATTS | FD-100A | TRAP GUARD - PROSET |
| WCO | – | – | – | AS SHOWN ON DWG | WALL CLEANOUT - NO-HUB PVC CLEANOUT TEE WITH ROUND STAINLESS STEEL COVER AND CENTER SCREW, GASKETED SEAL BRASS THREADED PLUG WITH RECESSED SOCKET | WATTS | CO-460-RO | |
| DCO | – | – | – | AS SHOWN ON DWG | EXTERIOR DOUBLE CLEANOUT - CAST IRON CLEANOUT WITH ROUND ADJUSTABLE SCORIATED SECURED CAST IRON TOP, GASKET SEAL. CAST IRON PLUG WITH RECESSED SOCKET. INSTALL IN MINIMUM OF 24" x 12" x 4" REINFORCED CONCRETE PAD WITH BEVELED EDGES | WATTS | (QTY-2) CO-200-RK | |

NOTES
1. MANUFACTURERS WITH MODEL NUMBERS ARE BASE ITEMS. OTHER MANUFACTURERS MUST BE EQUIVALENT MANUFACTURERS UNLESS NOTED OTHERWISE
2. FOR MOUNTING HEIGHTS OF INDIVIDUAL WALL MOUNTED FIXTURES, REFER TO P-001 SHEET
3. EACH UNDER SLAB OR CONCEALED P-TRAP SHALL BE A DEEP SEAL TYPE
4. PROVIDE EACH WALL MOUNTED PLUMBING FIXTURE, SUCH AS SINKS, LAVATORIES, ELECTRIC WATER COOLERS, DRINKING FOUNTAINS, ETC., WITH A FLOOR MOUNTED SUPPORT CARRIER WITH RECTANGULAR LEGS
5. UNLESS SCHEDULED OTHERWISE, PROVIDE EACH LAVATORY, SINK, WATER COOLER, ETC. WITH A P-TRAP ASSEMBLY CONSISTING OF A CHROME PLATED (C.P.) CAST BRASS TRAP WITH CLEANOUT PLUG, C.P. TUBING OUTLET (MIN. 17 GA.) AND C.P. CAST BRASS ESCUTCHEON WITH SETSCREW.
6. PROVIDE EACH FIXTURE WHICH REQUIRES COLD AND/OR HOT WATER (EXCEPT FLUSH VALVES) WITH A SUPPLY STOP ASSEMBLY CONSISTING OF A C.P. BRASS STOP VALVE (MIN. 1/2") WITH QUARTER STOPS AND LOCK SHIELD, STAINLESS STEEL FLEXIBLE RISER, C.P. BRASS NIPPLE, AND C.P. CAST BRASS ESCUTCHEON WITH SETSCREW.
7. FOR EACH PUBLIC LAVATORY OR SINK WITH EXPOSED DRAIN AND BOTH COLD AND HOT SUPPLY COMPONENTS, PROVIDE A MANUFACTURED INSULATION KIT MADE FROM MOLDED CLOSED CELL VINYL THAT IS ANTI-MICROBIAL AND SEAMLESS. EACH KIT SHALL COVER THE TAILPIECE, P-TRAP, WALL BEND, BOTH WATER SUPPLY STOPS, AND BOTH WATER RISERS. KITS SHALL BE EQUAL OR EQUIVALENT TO "PROWRAP" BY McGUIRE OR LAV-GUARD BY TRUEBRO.
8. WHERE ARCHITECTURAL PLANS SHOW WATER CLOSETS AND URINALS, PROVIDE AND INSTALL FLUSHING VALVE SUCH THAT FLUSH HANDLE IS ON WIDE SIDE OF WATER CLOSET.
9. PROVIDE WATER HAMMER ARRESTORS LOCATED AND SIZED ACCORDING TO PDI RECOMMENDATIONS.
10. PROVIDE ISOLATION VALVES IN CW, HW AND HWR PIPING AS NEED OR AS SHOWN FOR ALL GROUPS OF FIXTURES.
11. INSTALL PLUMBING FIXTURES IN ACCORDANCE WITH LATEST ADA AND TAS STANDARDS.

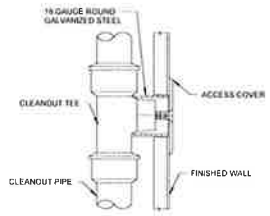
## WELL TANK SCHEDULE

| SYMBOL | LOCATION | TANK VOLUME | ACCEPTANCE FACTOR | DIMENSIONS | | DISCHARGE RATE (GPM) | GAUGE PRESSURE MAX/MIN (PSI) | DRAWDOWN (GAL) | MANUFACTURER | MODEL NO |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | DIAMETER (IN) | HEIGHT (IN) | | | | | |
| WT-1 | MECHAN 114 | 82 | 0.55 | 22 | 47 | 15 | 40/60 | 16.60 gal | WELLXTROL | WX-251 |

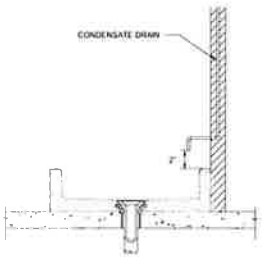
## ELECTRIC WATER HEATER SCHEDULE

| SYMBOL | LOCATION | STORAGE GALLONS | HTG ELEMENTS (QTY/KW) | ELECTRICAL | | RECOVERY (GPH) | WATER TEMPERATURE | | MANUFACTURER | MODEL NO |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | VOLTAGE | PHASE | | INLET | RISE | | |
| WH-1 | MECHAN 114 | 10 | 2 | 240 V | 1 | 15 | 67°F | 53°F | A.O. SMITH | DEL-10 |

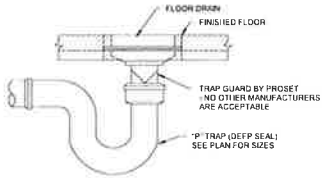
NOTES
1. WATER HEATER SHALL HAVE A PORCELANIZED GLASSLINED TANK AND BE ADDITIONALLY PROTECT AGAINST PREMATURE FAILURE BY A FACTORY INSTALLED ANODE ROD. WATER HATER SHALL HAVE A PROPERLY SIZED FACTORY PROVIDED TEMPERATURE AND PRESSURE RELIEF VALVE
2. TANK SHALL HAVE A THREE-YEAR WARRANTY
3. WATER HEATER SHALL BE PROVIDED WITH NON-SIMULTANEOUS ELEMENTS



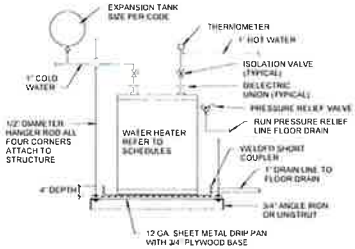

B2 WALL CLEANOUT NTS




A2 CONDENSATE DRAIN TO MOP SINK NTS




A3 FLOOR DRAIN NTS




A4 ELECTRIC WATER HEATER - SUSPENDED NTS

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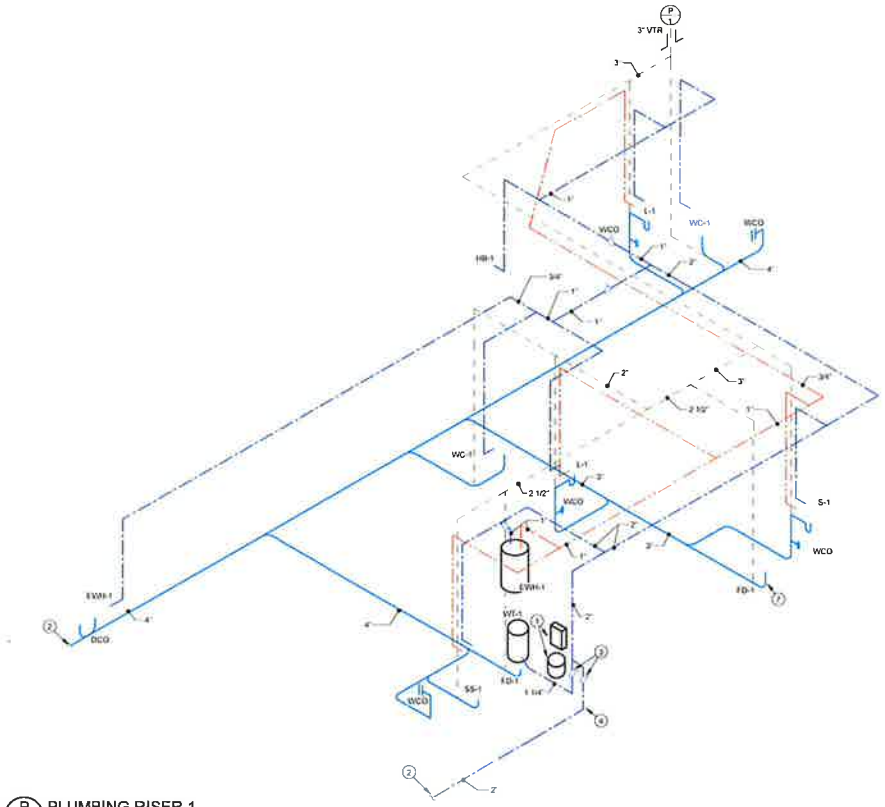
300 North Loraine
Midland, TX

PROJECT NO
6119.21 - WEST
43015.22 - NORTH

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|---|---|---|
| 1 | 10/31/2023 | ISSUE FOR PROPOSAL |

**Plumbing Details & Schedules**

**P-601**




P/1 PLUMBING RISER 1
SCHEMATIC ONLY

## KEY NOTES

AS INDICATED BY ⓪

1. NEW RO SYSTEM TO SUPPLY ICE MACHINE AND S-1. S-1 SHALL HAVE RO MANUFACTURER PROVIDED SPOUT
2. REFER TO CIVIL FOR CONTINUATION OF LINES.
3. ADD 2" BALL VALVE IN VERTICAL. SEE P-111 P1 FOR DETAIL.
4. TURN LINE UP INTO MECHJAN 114
5. FLOOR DRAIN SHALL BE UNDER MILLWORK TO SERVICE UNDERCOUNTER ICE MAKER

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**Citizen Collection Stations**

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300 North Loraine
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**Plumbing Risers**

**P-901**

## ELECTRICAL ABBREVIATIONS

| | | | |
|---|---|---|---|
| ABOVE COUNTER | AC | HORSEPOWER | HP |
| ABOVE FINISHED FLOOR | AFF | | |
| ALARM | ALM | ILLUMINATION ENGINEERING SOCIETY OF NORTH AMERICA | IESNA |
| ALTERNATING CURRENT | AC | INTERMEDIATE METAL CONDUIT | IMC |
| AMERICAN NATIONAL STANDARDS INSTITUTE | ANSI | | |
| AMERICAN STEEL WIRE GAUGE | ASWG | KILOVOLT | kV |
| AMERICAN WIRE GAUGE | AWG | KILOVOLT AMP | kVA |
| AMPERE | AMP | KILOWATT | kW |
| AMPERE INTERRUPTING CAPACITY | AIC | KILOWATT HOUR | kWH |
| AMPS SHORT CIRCUIT | ASC | | |
| ARCHITECT | ARCH | LIQUIDTIGHT FLEXIBLE METAL CONDUIT | LFMC |
| AUDIO VISUAL | AV | LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT | LFNC |
| AUTHORITY HAVING JURISDICTION | AHJ | | |
| AUTOMATIC TRANSFER SWITCH | ATS | MAIN CIRCUIT BREAKER | MCB |
| | | MAIN LUGS ONLY | MLO |
| CLOSED CIRCUIT TELEVISION | CCTV | MINIMUM CIRCUIT AMPS | MCA |
| COAXIAL CABLE | COAX | MOTOR CONTROL CENTER | MCC |
| COLOR RENDERING INDEX | CRI | | |
| COMMUNICATIONS | COMM | NATIONAL ELECTRICAL CODE | NEC |
| COPPER | CU | NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION | NEMA |
| CURRENT TRANSFORMER | CT | NATIONAL FIRE CODE | NFC |
| | | NATIONAL FIRE PROTECTION ASSOCIATION | NFPA |
| DECIBEL | dB | NORMALLY CLOSED | NC |
| DEMOLITION | DEMO | NORMALLY OPEN | NO |
| DIRECT CURRENT | DC | NOTIFICATION APPLIANCE CIRCUIT | NAC |
| DOUBLE POLE DOUBLE THROW | DPDT | | |
| DOUBLE POLE SINGLE THROW | DPST | POLY VINYL CHLORIDE | PVC |
| | | POWER FACTOR | PF |
| EACH | EA | | |
| ELECTRIC | ELEC | RIGID GALVANIZED STEEL | RGS |
| ELECTRICAL METALLIC TUBING | EMT | RIGID NONMETALLIC CONDUIT | RNC |
| ELECTRICAL NONMETALLIC TUBING | ENT | | |
| | | SINGLE PHASE | 1Ø |
| FIRE ALARM | FA | SINGLE POLE DOUBLE THROW | SPDT |
| FIRE ALARM ANNUNCIATOR PANEL | FAAP | SINGLE POLE SINGLE THROW | SPST |
| FIRE ALARM CONTROL PANEL | FACP | SWITCHBOARD | SWBD |
| FLEXIBLE METALLIC CONDUIT | FMC | | |
| FOOTCANDLE | FC | | |
| FULL LOAD AMPS | FLA | THREE PHASE | 3Ø |
| GAUGE | GA | | |
| GENERATOR | GEN | UNINTERRUPTIBLE POWER SUPPLY | UPS |
| GROUND | GND | | |
| GROUND FAULT CIRCUIT INTERRUPTER | GFCI | VARIABLE FREQUENCY DRIVE | VFD |
| | | VOLT VOLTS VOLTAGE | V |
| | | VOLT AMPERE | VA |
| | | WIRELESS ACCESS POINT | WAP |
| | | WEATHERPROOF | WP |

## ELECTRICAL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | 2'x4' RECESSED LIGHT FIXTURE. UPPER CASE INDICATES TYPE IN SCHEDULE. LOWER CASE INDICATES SWITCH. |
| | 2'x4' RECESSED LIGHT FIXTURE, DIAGONAL MARKING INDICATES EGRESS FIXTURE CONNECTED TO EMERGENCY POWER SUPPLY. UPPER CASE INDICATES TYPE IN SCHEDULE. LOWER CASE INDICATES SWITCH. |
| | EMERGENCY WALL PACK CONNECTED TO EMERGENCY LIGHTING POWER SUPPLY. UPPER CASE INDICATES TYPE IN SCHEDULE. |
| | SINGLE FACE EXIT SIGN AS SCHEDULED. CONNECTED TO EMERGENCY LIGHTING POWER SUPPLY. ARROWS INDICATE DIRECTIONAL ARROWS. PROVIDE SINGLE OR DOUBLE FACE AS REQUIRED OR INDICATED. UPPER CASE INDICATES TYPE IN SCHEDULE. "WG" INDICATES WIRE GUARD. |
| $ | WALL SWITCH, REFER TO LIGHTING CONTROL MATRIX SCHEDULE FOR ALL CONTROL REQUIREMENTS. |
| | 125V, 20A, 2P, 3W. GROUNDING TYPE DUPLEX RECEPTACLE. "GFCI" DENOTES GROUND FAULT INTERRUPTER. "WP" DENOTES WEATHERPROOF COVER. "AC" DENOTES ABOVE COUNTER MOUNTING. "USB" DENOTES COMBINATION USB DEVICE. |
| | CONDUCTORS IN CONDUIT. MINIMUM NUMBER 18 (2) #12 AWG + #12 GND. PROVIDE NUMBER OF CONDUCTORS AS REQUIRED FOR SWITCHING INDICATED AND CONTINUING CIRCUITS. |
| | SURFACE MOUNTED SINGLE SECTION PANELBOARD. LABEL INDICATES PANEL NAME. REFER TO PANEL SCHEDULE AND RISER DIAGRAM FOR ADDITIONAL INFORMATION. |
| | DATA OUTLET |
| | WALL MOUNTED FIXTURE. UPPER CASE INDICATES TYPE IN SCHEDULE. LOWER CASE INDICATES SWITCH. |
| | DOUBLE FACE EXIT SIGN AS SCHEDULED. CONNECTED TO EMERGENCY LIGHTING POWER SUPPLY. ARROWS INDICATE DIRECTIONAL ARROWS. PROVIDE SINGLE OR DOUBLE FACE AS REQUIRED OR INDICATED. UPPER CASE INDICATES TYPE IN SCHEDULE. "WG" INDICATES WIRE GUARD. |
| | SEQUENCE OF OPERATION LIGHTING CONTROL DEVICE. REFER TO CONTROL MATRIX FOR ABBREVIATIONS AND LIGHTING CONTROL INFORMATION. |
| LC | LIGHTING CONTACTOR |
| J | JUNCTION BOX |
| | HOMERUN TO PANELBOARD. REFER TO SPECIFICATIONS FOR LIMITING NUMBER OF CONDUCTORS PER HOMERUN. |
| | SURFACE MOUNTED COMMUNICATIONS TERMINAL BOARD |

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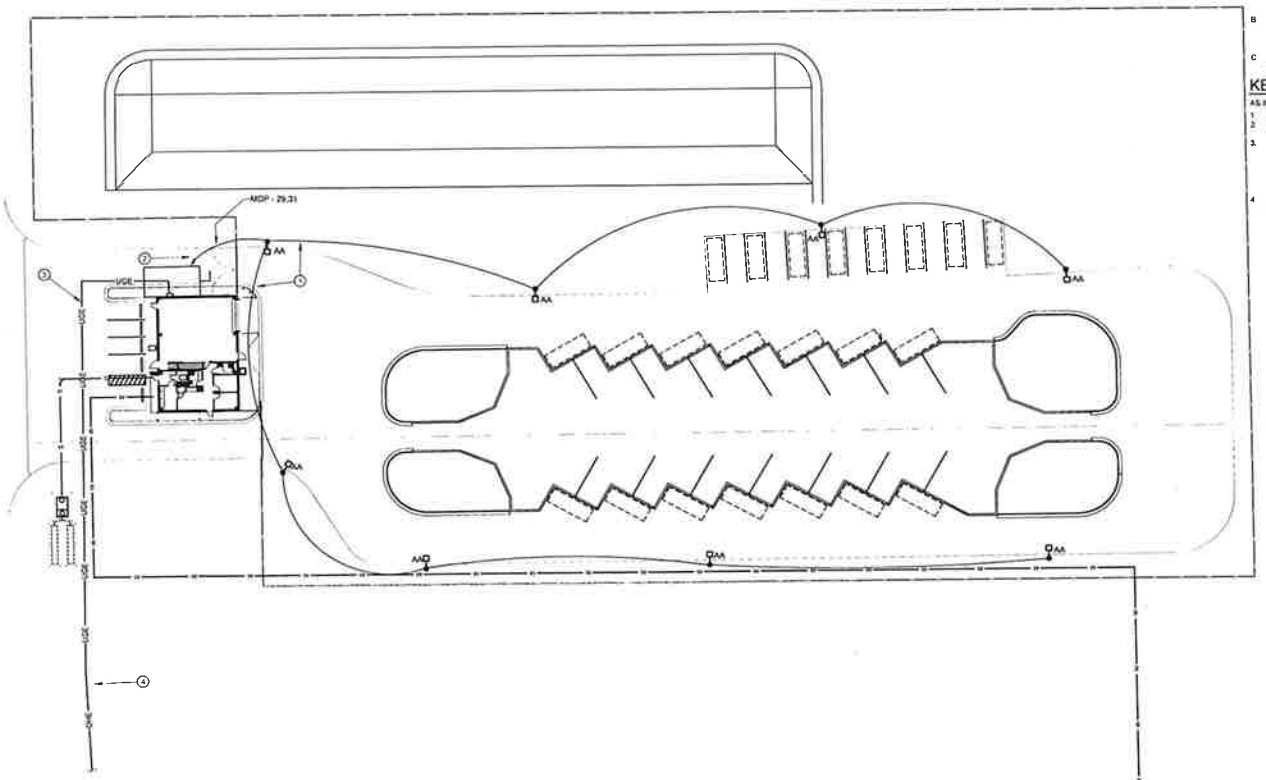
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Electrical Abbreviations & Legend

E-001

10/31/2023 1:51:45 PM




## GENERAL NOTES

A COORDINATE WITH THE UTILITY SERVICE PROVIDERS FOR ALL REQUIREMENTS FOR DELIVERING POWER SERVICE TO THE NEW BUILDING

B REFER TO THE LIGHT FIXTURE SCHEDULE FOR FIXTURE TYPES. PROVIDE THE NUMBER OF FIXTURES AND ORIENTATION NOTED FOR POLE-MOUNTED FIXTURES. POLE EPA RATINGS SHALL BE FOR THE NUMBER OF FIXTURES SHOWN

C CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EARTH WORK.

## KEY NOTES

AS INDICATED BY (#)

1. PROVIDE (2)#8 AWG + #8 GND IN 3/4" CONDUIT
2. EXTEND AND CONNECT TO LIGHTING CONTROL RELAY PANEL LOCATED IN ELECTRICAL ROOM 113
3. NEW UNDERGROUND SECONDARY SERVICE ROUTED FROM OVERHEAD POLE MOUNTED TRANSFORMER. PROVIDE TRENCH CONDUIT AND BACKFILL. CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS WITH ONCOR ELECTRIC DELIVERY. REFER TO ELECTRICAL RISER DIAGRAM ON SHEET E-501 FOR ADDITIONAL INFORMATION
4. POLE MOUNTED TRANSFORMERS AND OVERHEAD TO UNDERGROUND TRANSITION BY ONCOR DELIVERY

## SITE LIGHTING FIXTURE SCHEDULE

| TYPE | MOUNTING | VOLTAGE | MODEL NUMBER | LAMPS | REMARKS |
|---|---|---|---|---|---|
| AA | POLE | 240V | DSX-LED-P7-40K-80CRI-T2M-MVOLT-RPA-DBLXD<br>RTS-25-5-9B-DM19AS-DBLXD | LED | AREA LED POLE MOUNTED FIXTURE WITH 20000 LUMEN OUTPUT, 40K COLOR TEMPERATURE, WITH TYPE T2M DISTRIBUTION AND BLACK FINISH. PROVIDE 25 FOOT ROUND TAPERED STEEL POLE WITH MATCHING FINISH |

NOTES

1 Electrical Site Plan - North Site

1" = 30'

0 30 60'

N

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Electrical
Site Plan
-North Site

E-100

FILE NAME: C:\Users\rmenez\appdata\local\temp\AcPublish_16\E-100-6119 midland north.dwg LAYOUT NAME: E-110 PRINTED: Tuesday, October 31, 2023 - 1:24pm USER: rmenez

## SITE LIGHTING FIXTURE SCHEDULE

| TYPE | MOUNTING | VOLTAGE | MODEL NUMBER | LAMPS | REMARKS |
|---|---|---|---|---|---|
| AA | POLE | 240V | DSX-LED-P7-40K-80CRI-T2M-MVOLT-RPA-DBLXD<br>RTS-25-5 9B-DM19AS-DBLXD | LED | AREA LED POLE MOUNTED FIXTURE WITH 20000 LUMEN OUTPUT, 40K COLOR TEMPERATURE, WITH TYPE T2M DISTRIBUTION AND BLACK FINISH PROVIDE 25 FOOT ROUND TAPERED STEEL POLE WITH MATCHING FINISH |

NOTES

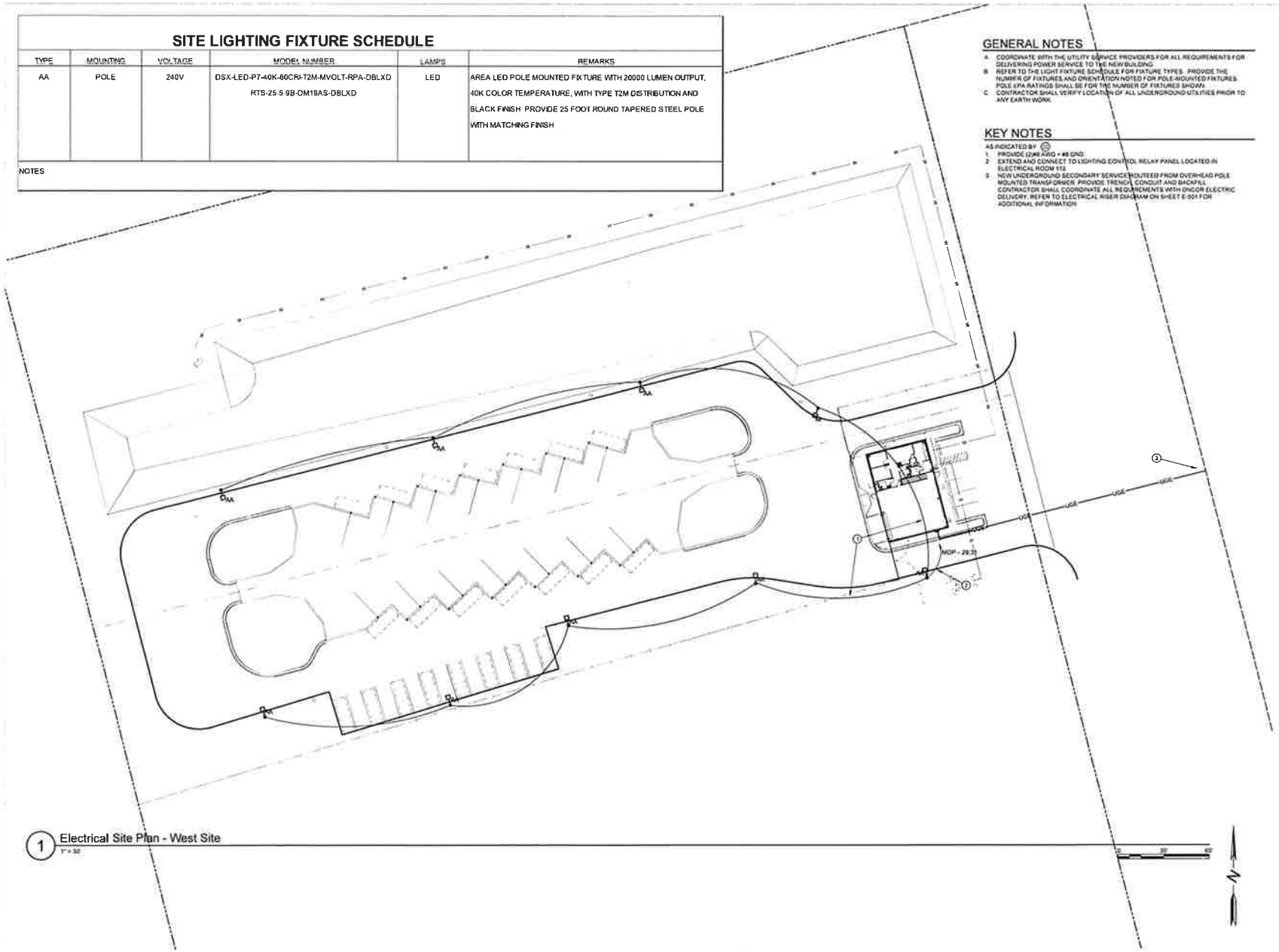
## GENERAL NOTES

A. COORDINATE WITH THE UTILITY SERVICE PROVIDERS FOR ALL REQUIREMENTS FOR DELIVERING POWER SERVICE TO THE NEW BUILDING.
B. REFER TO THE LIGHT FIXTURE SCHEDULE FOR FIXTURE TYPES. PROVIDE THE NUMBER OF FIXTURES AND ORIENTATION NOTED FOR POLE-MOUNTED FIXTURES. POLE EPA RATINGS SHALL BE FOR THE NUMBER OF FIXTURES SHOWN.
C. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EARTH WORK.

## KEY NOTES

AS INDICATED BY (#)

1. PROVIDE (2)#8 AWG + #8 GND.
2. EXTEND AND CONNECT TO LIGHTING CONTROL RELAY PANEL LOCATED IN ELECTRICAL ROOM 113.
3. NEW UNDERGROUND SECONDARY SERVICE ROUTEED FROM OVERHEAD POLE MOUNTED TRANSFORMER. PROVIDE TRENCH, CONDUIT AND BACKFILL. CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS WITH ONCOR ELECTRIC DELIVERY. REFER TO ELECTRICAL RISER DIAGRAM ON SHEET E-501 FOR ADDITIONAL INFORMATION.




1 Electrical Site Plan - West Site
1" = 30'

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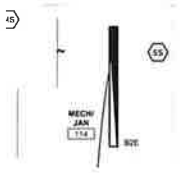
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Electrical Site Plan -West Site

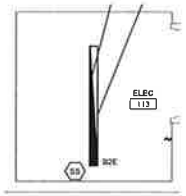
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4 Lighting Plan - Callout 2




3 Lighting Plan - Callout 1



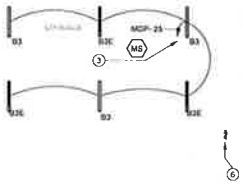

## GENERAL NOTES

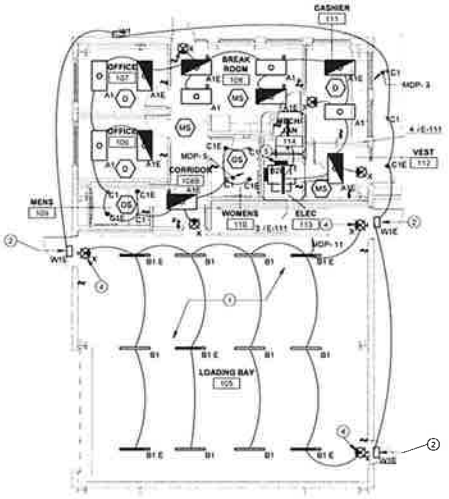
A. COORDINATE LOCATION OF LIGHT FIXTURES WITH ARCHITECTURAL AND MECHANICAL.
B. ALL EMERGENCY AND EGRESS LIGHTING SHALL BE CONNECTED TO THE SAME BRANCH CIRCUIT SERVING THE NORMAL LIGHTS AND SHALL BE ON THE LINE SIDE OF RELAYS OR SWITCHING DEVICES.
C. REFER TO KEYED NOTES FOR CONTROL OF ADDITIONAL EMERGENCY LIGHTING. ALL EXIT SIGNS SHALL BE CONNECTED FOR CONTINUOUS OPERATION.
D. AT LOCATIONS WHERE ROOM LIGHT FIXTURES ARE CONTROLLED THROUGH THE USE OF OCCUPANCY SENSORS, PROVIDE THE NUMBER OF SENSORS AND LOCATE THE UNITS AS REQUIRED FOR COMPLETE ROOM COVERAGE. WHERE MORE THAN ONE SENSOR IS LOCATED IN A COMMON SPACE, CONNECT THE UNITS SUCH THAT DETECTION OF OCCUPANCY FROM EITHER UNIT WILL ENERGIZE THE LIGHTING. WHERE SWITCHES ARE SHOWN IN CONJUNCTION WITH OCCUPANCY SENSORS, CONNECT THE SWITCHES TO DE-ENERGIZE THE LIGHTING INDICATED REGARDLESS OF OCCUPANCY. ADJUST ALL SENSOR TIME DELAYS AND MOTION SENSITIVITIES DURING PROJECT CLOSEOUT TO MEET THE OPERATIONAL FUNCTION OF THE OWNER.
E. EXACT LOCATION AND PLACEMENT OF EXIT LIGHTING SHALL BE FIELD DETERMINED TO ENSURE PROPER LINES OF SIGHT.
F. PROVIDE DEDICATED NEUTRAL WIRE FOR ALL 120V BRANCH CIRCUITS. NO MULTI-WIRE BRANCH CIRCUITS SHALL BE ALLOWED.
G. ELECTRICAL FLOOR PLANS AND SCHEDULES ARE VALID FOR BOTH WEST AND NORTH SITES.

## KEY NOTES

AS INDICATED BY (#)

1. MOUNT FIXTURE AT 18'-0" AFF. TYPICAL OF ALL FIXTURES TYPE "B1" AND "B1E".
2. MOUNT EXTERIOR WALL PACK AT 9'-4 1/2" AFF. COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECTUAL. EXTEND AND CONNECT TO LIGHTING CONTROL RELAY PANEL FOR CONTROL.
3. MOUNT FIXTURE AT 7'-5" AFF. TO BASE OF FIXTURE. TYPICAL OF ALL FIXTURES TYPE "B2" AND "B2E".
4. MOUNT EXIT SIGN 1'-0" FROM THE TOP OF THE DOOR TO THE BOTTOM OF THE FIXTURE.
5. PROVIDE LIGHTING RELAY PANEL (LRP). ARP-INTENC08-NLT-4FCR-MVOLT-HLK-SM-DTC-ARPA-APS-OL OR EQUIVALENT. LIGHTING RELAY PANEL TO CONTROL EXTERIOR WALL PACK LIGHTS AND PARKING LOT LIGHTS. COORDINATE WITH MANUFACTURER FOR FURTHER DETAILS.
8. SECOND FLOOR LIGHT FIXTURES B3 AND B3E SHALL BE CONTROLLED BY LIGHT FIXTURE SWITCH LOCATED ON 1ST FLOOR.




2 Lighting Plan - Mezzanine




1 Lighting Plan




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Electrical Lighting Plan

E-111

## GENERAL NOTES

A REFER TO THE MECHANICAL DRAWINGS FOR THE LOCATION AND NUMBER OF SUPPLY AND RETURN AIR DUCTS. FOR UNITS THAT ARE INDICATED TO HAVE SMOKE DETECTION COVERAGE, PROVIDE THE NUMBER OF DETECTORS AS REQUIRED TO COVER ALL OF THE DUCTS.
B ALL CONDUITS SERVING ROOF-MOUNTED EQUIPMENT SHALL BE EXTENDED INSIDE THE UNIT CURBS TO AVOID ADDITIONAL PITCHPANS. ALL EXTERIOR CONDUIT SHALL BE RIGID GALVANIZED STEEL OR LIQUID TIGHT FLEXIBLE CONDUIT AS SPECIFIED
C AT LOCATIONS WHERE A COMMON EXHAUST FAN IS CONTROLLED THROUGH INDEPENDENT WALL SWITCHES, CONNECT THE SWITCHES IN PARALLEL TO ALLOW EITHER SWITCH TO OPERATE THE FAN
D REFER TO THE MECHANICAL EQUIPMENT ELECTRICAL SCHEDULE FOR BRANCH CIRCUIT REQUIREMENTS FOR ALL MECHANICAL EQUIPMENT
E COORDINATE WITH SECURITY CONTRACTOR FOR ALL POWER REQUIREMENTS. REFER TO COMMUNICATION SHEETS FOR JUNCTION BOXES FOR MOTION DETECTORS, KEYPADS, DOOR CONTACTORS, ETC.
F CONTRACTOR IS RESPONSIBLE FOR PROVIDING CONNECTION OF ALL HVAC AND PLUMBING EQUIPMENT (BUT NOT LIMITED TO RTU'S, AHU'S, FANS, DAMPERS, LOUVERS, PUMPS AND CONTROLS)
G PROVIDE DEDICATED NEUTRAL WIRE FOR ALL 120V OR 277V BRANCH CIRCUITS. NO MULTI-WIRE BRANCH CIRCUITS SHALL BE ALLOWED
H ELECTRICAL FLOOR PLANS AND SCHEDULES ARE VALID FOR BOTH WEST AND NORTH SITES

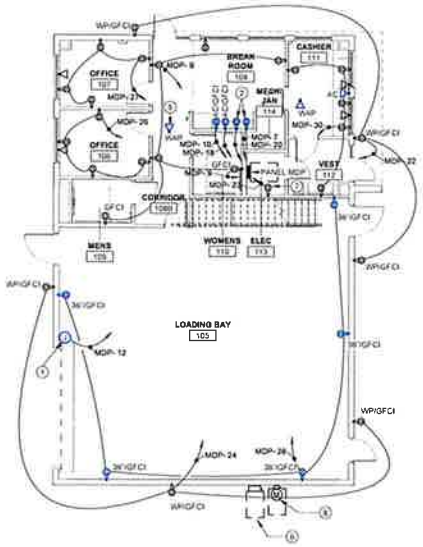
## KEY NOTES

AS INDICATED BY ⊛

1 PROVIDE POWER FOR OVERHEAD DOOR EXTEND AND CONNECT (2)#12 AWG + #12 GND IN 3/4" CONDUIT. COORDINATE EXACT LOCATION AND CONTOL LOCATION WITH OVERHEAD DOOR MANUFACTURER
2 PROVIDE A DEDICATED RECEPTACLE FOR BELOW COUNTER ICE MAKE AND AND REFRIGERATOR AT 30" AFF
3 TYPICAL DATA DROP. PROVIDE SINGLE GANG BACK BOX AND 3/4" CONDUIT LOCATED TO AN ACCESSIBLE LOCATION ABOVE CEILING. PROVIDE BUSHING AT END OF CONDUIT. ROUTE CAT 6 CABLE LAN RACK, UTILIZING J-HOOKS
4 TYPICAL DATA DROP FOR WIRELESS ACCESS POINT( WAP). PROVIDE SINGLE GANG BACK BOX AS REQUIRED. ROUTE CAT 6 CABLE LAN RACK, UTILIZING J-HOOKS
5 WIRELESS ACCESS POINTS ARE TO BE CEILING MOUNTED. FIELD VERIFY FOR PROPER LOCATION
6 MOUNT 200A/2P, SERVICE RATED DISCONNECT, WITH 150-AMP FUSES ADJACENT TO ONCOR KWH METER. FIELD VERIFY FOR PROPER WORK SPACE CLEARANCE. REFER TO ELECTRIC RISER DIAGRAM FOR MORE INFORMATION
7 PROVIDE DEDICATED RECEPTACLE FOR IT/LAN RACK. COORDINATE WITH ARCHITECHTUAL FOR PROPER PLACEMENT
8 NEW KWH METER FOR SERVICE. COORDINATE WITH ONCOR ELECTRIC DELIVERY FOR ALL REQUIREMENTS




2 Power and Communications Plan - Mezzanine
1/8" = 1'-0"




1 Power & Communications Plan
1/8" = 1'-0"

WEST SITE PLAN NORTH NORTH SITE PLAN NORTH

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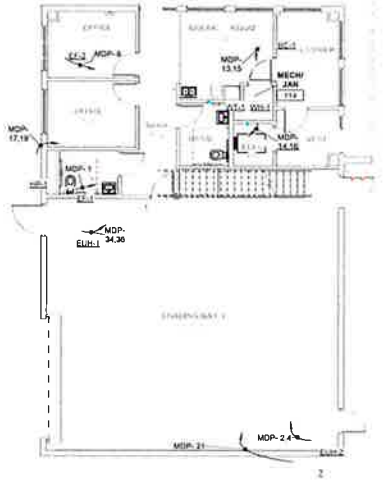
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Power & Communications Plan

E-121

## GENERAL NOTES

A. FOR CONNECTION REQUIREMENTS AND DETAILS, REFER TO SHEET E-601 FOR MORE INFORMATION.
B. ELECTRICAL FLOOR PLANS AND SCHEDULES ARE VALID FOR BOTH WEST AND NORTH SITES.




1 MECHANICAL POWER PLAN
1/8" = 1'-0"

0 4' 8' 16

WEST SITE PLAN NORTH

NORTH SITE PLAN NORTH

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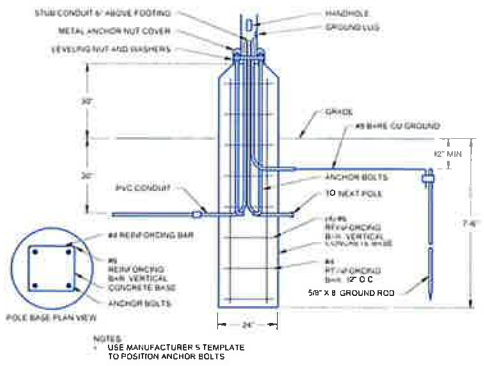
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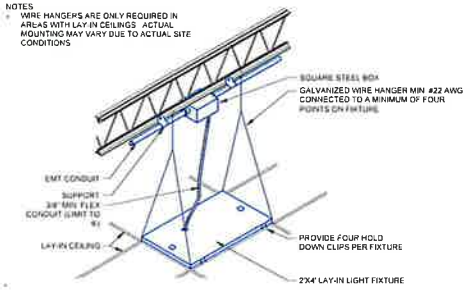
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**Mechanical Equipment Power Plan**

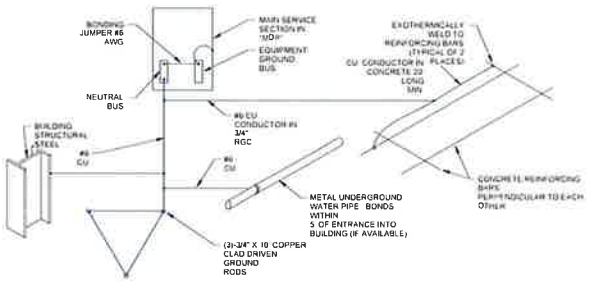
**E-122**




4 POLE BASE DETAIL
NTS

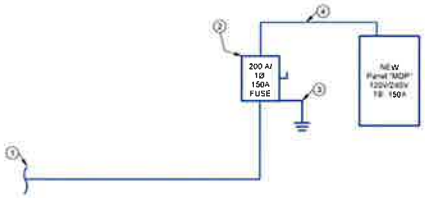



3 RECESSED LIGHT FIXTURE INSTALLATION DETAIL
NTS




2 GROUNDING DETAIL
NTS

KEYED NOTES
AS INDICATED BY
1. ELECTRICAL SERVICE FROM UTILITY
2. PROVIDE NEMA 3R, SERVICE RATED, 200A/2P, WITH 150-AMP FUSES. MOUNT ADJACENT TO KWH METER.
3. REFER TO GROUNDING ELECTRODE DETAIL FOR ADDITIONAL INFORMATION.
4. (3) #1/0 AWG + #6 GND in 1 1/2" CONDUIT.




1 ELECTRICAL RISER DIAGRAM - WEST AND NORTH SITE
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Electrical Riser Diagram And Details

E-501

## LIGHTING CONTROL SEQUENCE MATRIX

| DESIGNATION | TYPICAL SPACES | DIMMING | NETWORKED | OCCUPANCY (AUTO ON) | OCCUPANCY (VACANCY) | STAND ALONE | TIME CLOCK | WIRELESS | DESCRIPTION OF LIGHTING CONTROL DEVICES WITHIN SPACE |
|---|---|---|---|---|---|---|---|---|---|
| O | •OFFICES | Yes | No | No | Yes | Yes | No | No | •WALL STATION WITH ON/OFF AND 0-10V DIMMING CAPABILITIES. PROVIDE CONNECTION FOR CONTROL OF LIGHTING THROUGH MULTIPLE SWITCH LOCATIONS.<br>•CEILING MOUNTED OCCUPANCY (VACANCY) SENSOR SHALL TURN ALL LUMINAIRES OFF AFTER TIMEOUT (20 MIN.) EXPIRES. |
| MS | •CORRIDORS<br>•LOBBIES<br>•VESTIBULES | No | No | Yes | No | Yes | Yes | No | •ON/OFF WALL SWITCH, PROVIDE CONNECTIONS REQUIRED FOR CONTROL OF LIGHTING THROUGH MULTIPLE SWITCH LOCATIONS.<br>•CEILING MOUNTED OCCUPANCY (AUTO "ON") SENSOR SHALL TURN ALL LUMINAIRES OFF AFTER TIMEOUT (20 MIN.) EXPIRES. SHALL AUTOMATICALLY TURN ALL LUMINAIRES ON TO 100% UPON DETECTION OF MAJOR OR MINOR MOTION.<br>•THIS AREA WILL BE PROGRAMMED WITH TIME CONTROL TO ALLOW FIXTURES TO STAY ON DURING OCCUPIED TIMES (COORDINATE OCCUPIED TIMES AND PROGRAMMING WITH OWNER). LIGHT SWITCH SHALL W,LLOW FOR OVERRIDE OF OCCUPANCY SENSORS, PHOTOCELLS, AND TIME PROGRAM. |
| OS | •SMALL RESTROOMS<br>•SMALL STORAGE ROOMS | No | No | No | Yes | Yes | No | No | •ON/OFF WALL SWITCH WITH INTEGRAL OCCUPANCY SENSOR. INTEGRAL OCCUPANCY SENSOR SHALL TURN ALL LUMINAIRES OFF AFTER (20 MIN.) EXPIRES.<br>•(NETWORK CONTROLS NOT REQUIRED, STAND-ALONE CONTROLS ONLY FOR THIS SPACE.) |
| SS | •ELECTRICAL ROOMS<br>•MECHANICAL/JANITOR ROOMS | No | No | No | No | Yes | No | No | •ON/OFF WALL SWITCH CONTROL (ONLY) TO AVOID POSSIBLE SAFETY CONCERN OF INADVERTENT OF THAT COULD BE CAUSED BY OCCUPANCY SENSING DEVICES.<br>•(NETWORK CONTROLS NOT REQUIRED, STAND-ALONE CONTROLS ONLY FOR THIS SPACE.) |

NOTES:

A REFER TO PLANS FOR LIGHTING DEVICE LOCATIONS AND OTHER INFORMATION
B SYMBOLS PROVIDED IN EACH SPACE (INDICATED IN THE LIGHTING CONTROLS SEQUENCE MATRIX SCHEDULE) ARE INTENDED TO DENOTE THE TYPES OF CONTROLS REQUIRED FOR EACH ASSOCIATED SPACES. THE SWITCH SYSMBOLS DENOTE REQUIRED LOCATIONS FOR THE CONTROL DEVICES IN EACH ASSOCIATED SPACE
C IN ADDITION TO CONTROL TYPES INDICATED, PROVIDE DAYLIGHT CONTROLS IN ALL AREAS SHOWN WITH DAYLIGHTING ZONES (INDICATED BY HATCHED AREAS ON PLANS). DIMMABLE DRIVERS IN EACH DAYLIGHT ZONE TO BE DIMMED SEPARATELY BY ZONE (CURRENT LIGHT LEVEL TO OFF, CONTINUOUS DIMMING, NO STEP DIMMING). DIMMING FUNCTION IN EACH DAYLIGHT ZONE IS TO MAINTAIN EVEN ILLUMINATION ACROSS THE ZONE, BASED ON THE SETTINGS OF THE SWITCH
D PROVIDE NUMBER OF RELAY PACKS, DIMMING RELAY PACKS, OCCUPANCY SENSORS AND PHOTOCELLS FOR COMPLETE AND PROPER OPERATION OF THE LIGHTING SYSTEM
E IN COMMON USE SPACES SUCH AS CORRIDORS, LOBBIES, CAFETERIA, AND HUBS/COLABS. PROVIDE CONNECTION TO FIRE ALARM TO BRING LIGHTING IN THESE AREAS/SPACES TO FULL "ON" IN THE EVENT OF AN ALARM
F LIGHTING CONTROLS SHALL COMPLY WITH THE REQUIREMENTS OF THE IECC 2015 AND SHALL BE COMMISIONED IN ACCORDANCE WITH THE REQUIREMENTS OF IECC 408
G REFER TO SPECIFICATION SECTION 26 09 43 NETWORKED LIGHTING CONTROLS FOR ADDITIONAL REQUIREMENTS
H ELECTRICAL LIGHTING CONTROLS SCHEDULES ARE VALID FOR BOTH WEST AND NORTH SITES

## LIGHTING FIXTURE SCHEDULE

| TYPE | ELECTRICAL DATA | MANUFACTURER | MODEL | LAMP | DESCRIPTION |
|---|---|---|---|---|---|
| A1 | 120 V/1-56 VA | LITHONIA | CPANL-2X4-ALO6-SWW7-M2 | LED | 2X4 MULTIVOLT LED SWITCHABLE FLAT PANEL WITH 6000 LUMENS AT 35K COLOR TEMPERATURE |
| A1E | 120 V/1-56 VA | LITHONIA | CPANL-2X4-ALO6-SWW7-M2-ELR,PCP10 HESDA | LED | SAME AS TYPE A1 EXCEPT WITH EMERGENCY BATTERY PACKAGE |
| B1 | 120 V/1-71 VA | LITHONIA | CLXL4S-10000LM-SEF-RDL-MVOLT-EZ1-35K-80C RI-WH | LED | 48 INCH LED LINEAR LIGHT WITH 10000 LUMEN AT 35K TEMPERATURE |
| B1 E | 120 V/1-71 VA | LITHONIA | CLXL4S-10000LM-SEF-RDL-MVOLT-EZ1-35K-80C RI-WH-PS1050 | LED | SAME AS TYPE B1 EXCEPT WITH EMERGENCY BATTERY PACK |
| B2E | 120 V/1-30 VA | LITHONIA | ZL10-L24-3000LM-FST-MVOLT-EZ1-35K-80CRI-E 15WLCP | LED | 48 INCH LED LINEAR LIGHT WITH 3000 LUMEN AT 35K TEMPERATURE AND EMERGENCY BATTERY PACK |
| B3 | 120 V/1-26 VA | LITHONIA | CLXL4S-4000LM-SEF-RDL-MVOLT-GZ1-35K-80C RI-WH | LED | 48 INCH LED LINEAR LIGHT WITH 4000 LUMEN AT 35K TEMPERATURE |
| B3E | 120 V/1-26 VA | LITHONIA | CLXL4S-4000LM-SEF-RDL-MVOLT-GZ1-35K-80C RI-WH-PS1050 | LED | SAME AS TYPE B3 EXCEPT WITH EMERGENCY BATTEY PACK |
| C1 | 120 V/1-6 VA | LITHONIA | LDN4-05LM-35K-L04AR-LSS-MVOLT-UGZ-AT | LED | 4 INCH 500 LUMEN MULTIVOLT LED DOWLIGHT AT 3500K COLOR TEMPERATURE |
| C1E | 120 V/1-6 VA | LITHONIA | LDN4-05LM-35K-L04AR-LSS-MVOLT-UGZ-AT-EL | LED | SAME AS TYPE C1 EXCEPT WITH EMERGENCY BATTERY PACK |
| W1 | 120 V/1-25 VA | LITHONIA | WPX1-LED -P2-40K-MVOLT-DBLXD | LED | EXTERIOR MULTIVOLT WALL FIXTURE WITH 2900 LUMENS AND 40K TEMPERATURE |
| W1E | 120 V/1-25 VA | LITHONIA | WPX1-LED -P2-40K-MVOLT-E4WH-DBLXD | LED | SAME AS TYPE W1 EXCEPT WITH EMERGENCY BATTERY PACK |
| X | 120 V/1-1 VA | LITHONIA | EXRD-EL-M6 | LED | LED EXIT SIGN WITH RED LETTERING AND EMERGENCY BATTERY BACKUP |

A LIGHTED EXIT SIGNS SHALL BE CONNECTED TO THE UNSWITCHED SIDE OF THE CIRCUIT SHOWN ON PLANS
B ELECTRICAL LIGHTING SCHEDULES ARE VALID FOR BOTH WEST AND NORTH SITES

## PANELBOARD SCHEDULE

PANELBOARD: MDP — MIN AIC RATING: 22000
DISTRIBUTION: 120/240V, 1 PHASE, 3 WIRE — MCB: 150 A
SUPPLY FROM: — ENCLOSURE: NEMA 1
LOCATION: ELEC 113 — MOUNTING: SURFACE

| CKT | TRIP AMPS | POLES | CIRCUIT DESCRIPTION | A | B | A | B | CIRCUIT DESCRIPTION | POLES | TRIP AMPS | CKT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 A | 1 | EF-1 | 115 VA | | 1500 VA | | EUH-2 | 2 | 20 A | 2 |
| 3 | 20 A | 1 | OUTDOOR LIGHTING | | 116 VA | | 1500 VA | | | | 4 |
| 5 | 20 A | 1 | BREAKROOM AND HALL LIGHTING | 784 VA | | 770 VA | | EF-2 | 1 | 20 A | 6 |
| 7 | 20 A | 1 | RECEPTACLE | | 180 VA | | 360 VA | RECEPTACLE | 1 | 20 A | 8 |
| 9 | 20 A | 1 | RECEPTACLE BREAKROOM 108 | 900 VA | | 180 VA | | RECEPTACLE BREAKROOM 108 | 1 | 20 A | 10 |
| 11 | 20 A | 1 | LOADING BAYS LIGHTING | | 655 VA | | 1000 VA | POWER LOADING BAY 105 | 1 | 20 A | 12 |
| 13 | 15 A | 2 | BC-1 | 900 VA | | 1000 VA | | | | | 14 |
| 15 | | | | | 900 VA | | 1000 VA | EWH-1 | 2 | 20 A | 16 |
| 17 | 30 A | 2 | HP-1 | 2160 VA | | 180 VA | | RECEPTACLE | 1 | 20 A | 18 |
| 19 | | | | | 2160 VA | | 180 VA | RECEPTACLE BREAKROOM 109 | 1 | 20 A | 20 |
| 21 | 20 A | 1 | L-1 | 135 VA | | 540 VA | | OUTDOOR RECEPTACLE | 1 | 20 A | 22 |
| 23 | 20 A | 1 | RECEPTACLE | | 180 VA | | 540 VA | OUTDOOR RECEPTACLE | 1 | 20 A | 24 |
| 25 | 20 A | 1 | MEZZANINE LIGHTING 201 | 156 VA | | 720 VA | | RECEPTACLE OFFICE 106 | 1 | 20 A | 26 |
| 27 | 20 A | 1 | RECEPTACLE OFFICE 107 | | 720 VA | | 900 VA | RECEPTACLE LOADING BAY 105 | 1 | 20 A | 28 |
| 29 | 20 A | 2 | Exterior lights | 864 VA | | 900 VA | | RECEPTACLE ENTRY 111 | 1 | 20 A | 30 |
| 31 | | | | | 864 VA | | | | | | 32 |
| 33 | – | 1 | SPACE | – | | 1500 VA | | EUH-1 | 2 | 20 A | 34 |
| 35 | – | 1 | SPACE | | – | | 1500 VA | | | | 36 |
| 37 | – | 1 | SPACE | – | | – | | SPACE | 1 | – | 38 |
| 39 | – | 1 | SPACE | | – | | – | SPACE | 1 | – | 40 |
| 41 | – | 1 | SPACE | – | | – | | SPACE | 1 | – | 42 |

| PHASE TOTALS | LOAD | CURRENT |
|---|---|---|
| PHASE A | 12789 VA | 107 A |
| PHASE B | 12447 VA | 104 A |
| PHASE C | 0 VA | 0 A |

| | |
|---|---|
| TOTAL CONNECTED LOAD | 25236 VA |
| ESTIMATED DEMAND LOAD | 25236 VA |
| DEMAND LINE AMPS | 105 A |

NOTES:
1 ELECTRICAL SCHEDULES ARE VALID FOR BOTH WEST AND NORTH SITES

## MECHANICAL EQUIPMENT ELECTRICAL SCHEDULE

| MARK | Voltage | PHASE | NO. OF POLES | PANEL | CIRCUIT | BREAKER | CONDUIT | CONDUCTOR | DISCONNECT | NOTE | LOAD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Blower Coil | | | | | | | | | | | |
| BC-1 | 240 V | 1 | 2 | MDP | 13,15 | 15 A | 3/4" | (2) #12 AWG + #12 GND | 0 A | 1,3 | 1200 VA |
| Electric Unit Heater | | | | | | | | | | | |
| EUH-1 | 240 V | 1 | 2 | MDP | 34,36 | 20 A | 3/4" | (2) #12 AWG + #12 GND | 0 A | 1 | 3000 VA |
| EUH-2 | 240 V | 1 | 2 | MDP | 2,4 | 20 A | 3/4" | (2) #12 AWG + #12 GND | 0 A | 1 | 3000 VA |
| Electric Water Heater | | | | | | | | | | | |
| EWH-1 | 240 V | 1 | 2 | MDP | 14,16 | 20 A | 3/4" | (2) #12 AWG + #12 GND | 30 A | | 2000 VA |
| Exhaust Fan | | | | | | | | | | | |
| EF-1 | 120 V | 1 | 1 | MDP | 1 | 20 A | 3/4" | (2) #12 AWG + #12 GND | 0 A | 1 | 115 VA |
| EF-2 | 120 V | 1 | 1 | MDP | 5 | 20 A | 3/4" | (2) #12 AWG + #12 GND | 0 A | 1 | 770 VA |
| Heat Pump | | | | | | | | | | | |
| HP-1 | 240 V | 1 | 2 | MDP | 17,19 | 30 A | 3/4" | (2) #10 AWG + #10 GND | 30 A | 1,3 | 4320 VA |
| Louver/Damper | | | | | | | | | | | |
| L-1 | 120 V | 1 | 1 | MDP | 21 | 20 A | 3/4" | (2) #12 AWG + #12 GND | 0 A | 1 | 120 VA |

NOTES:
1 PROVIDE A MOTOR RATED SWITCH. OVERLOADS SHALL MATCH MOTOR RATING
2 PROVIDE ROOF MOUNTED WP/GFCI RECEPTACLE MOUNTED ON/NEAR HVAC EQUIPMENT
3 PROVIDE 3/4" CONDUIT FROM INDOOR UNIT TO OUTDOOR UNIT TO SUPPORT POWER AND CONTROL CABLING. COORDINATE WITH MANUFACTURER AND MECHANICAL FOR ALL REQUIREMENTS
4 PROVIDE GFCI RECEPTACLE MOUNTED NEAR EQUIPMENT FOR MEANS OF DISCONNECT
5 ELECTRICAL SCHEDULES ARE VALID FOR BOTH WEST AND NORTH SITES

Parkhill
10/31/2023
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Citizen Collection Stations
City of Midland

MIDLAND
Feel the Energy!

CLIENT
City of Midland
300 North Loraine
Midland, TX

PROJECT NO
6119.21 - WEST
40015.22 - NORTH

| # | DATE | DESCRIPTION |
|---|---|---|
| 1 | 10/31/2023 | Issue for Proposal |

Electrical Schedules
E-601

Parkhill

PROJECT MANUAL

# CITY OF MIDLAND

## West and North Citizens' Collection Stations

## Midland, Texas

October | 2023

Parkhill Project # 01611921

PACKET 11.637 November 14, 2023

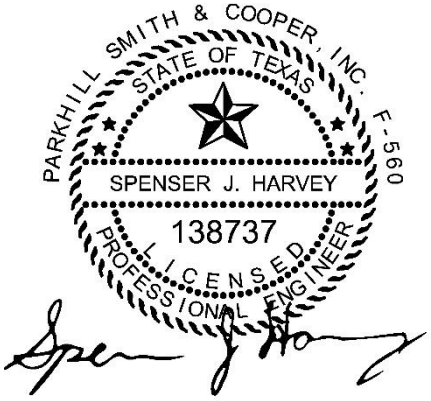
Parkhill

PROJECT MANUAL

# CITY OF MIDLAND

## West and North Citizens' Collection Stations

## Midland, Texas




10/31/2023

October | 2023

Parkhill Project # 01611921

PACKET 11.638 November 14, 2023

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Not Used

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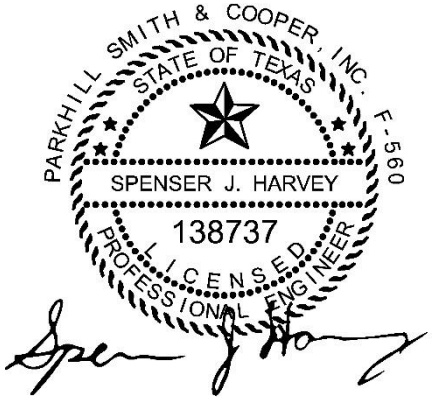
| | |
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| 03 10 00 | Concrete Forming and Accessories |
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Not Used

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11 40 00 Foodservice Equipment

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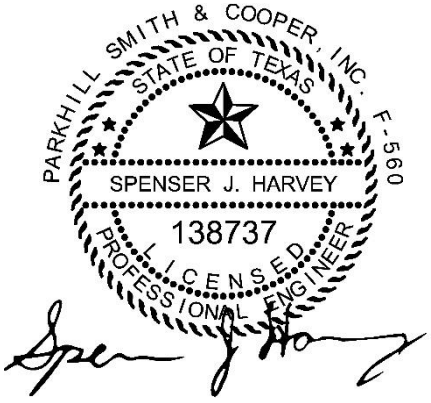
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Not Used




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28 32 39 Unit Heaters

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Not Used

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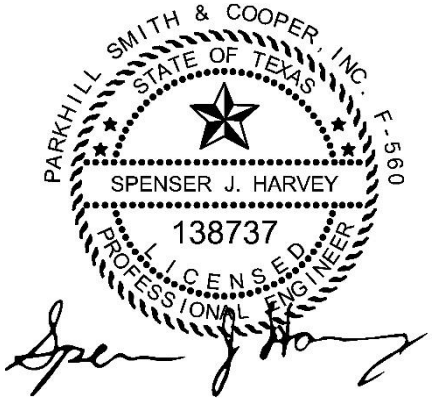
26 05 00 Basic Electrical Methods
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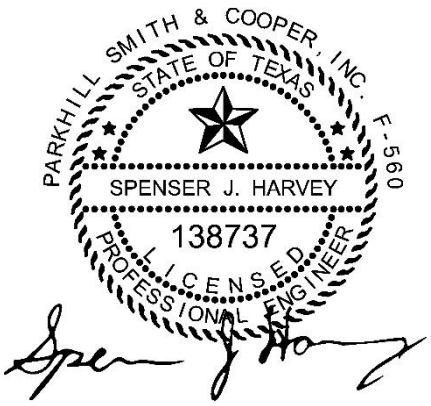
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Not Used




10/27/23

## DESIGN PROFESSIONAL RESPONSIBILITY

The Specification Sections authenticated by my seal and signature are limited to the following:

**DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES**

| | |
|---|---|
| 06 16 13 | Insulating Sheathing (Zip System R Sheathing) |
| 06 41 16 | Plastic-Laminate-Clad Architectural Cabinets |
| 06 64 00 | Plastic Paneling |

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| 08 33 23 | Overhead Coiling Doors |
| 08 41 13 | Hollow Metal Aluminum-Framed Entrances and Storefronts |
| 08 80 00 | Glazing |

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| 09 29 00 | Gypsum Board |
| 09 51 13 | Acoustical Panel Ceilings |
| 09 91 23 | Interior Painting |

**DIVISION 10 – SPECIALTIES**

| | |
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| 10 28 13 | Toilet Accessories |
| 10 44 16 | Fire Extinguishers |

**DIVISION 11 – EQUIPMENT**

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**DIVISION 13 – SPECIAL CONSTRUCTION**

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| | |
|---|---|
| 28 15 00 | Integrated Access Control Hardware Devices |




10/31/2023


PACKET 11.643 November 14, 2023

## DESIGN PROFESSIONAL RESPONSIBILITY

The Specification Sections authenticated by my seal and signature are limited to the following:

**DIVISION 03 - CONCRETE**


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| 05 40 00 | Cold-Formed Meal Framing | 11 |





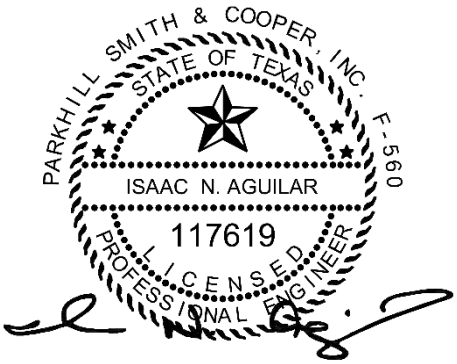
10/31/2023

## DESIGN PROFESSIONAL RESPONSIBILITY

The Specification Sections authenticated by my seal and signature are limited to the following:

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| 26 28 16.16 | Enclosed Switches | ..... |
| 26 51 00 | Interior Lighting | ..... |


10/31/2023

## DESIGN PROFESSIONAL RESPONSIBILITY

The Specification Sections authenticated by my seal and signature are limited to the following:

### DIVISION 22 – PLUMBING

| | |
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### DIVISION 23 – HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)

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| 23 31 00 | HVAC Ducts and Casings |
| 23 33 00 | Air Duct Accessories |
| 23 34 00 | HVAC Fans |
| 23 37 00 | Air Inlet and Outlets |
| 23 81 26.20 | Split System Heat Pumps |
| 28 32 39 | Unit Heaters |




10/31/2023

# DOCUMENT 00 11 20 - REQUEST FOR PROPOSALS

1.1 OWNER

City of Midland
300 North Loraine Street
Midland, Texas 79701

1.2 PROJECT

West and North Citizens' Collection Stations

1.3 ARCHITECT

Parkhill
1700 W. Wall, Suite 100
Midland, Texas 79701
432.697.1447
Attn: R. Ashley Coco, AIA

1.4 DESCRIPTION

A. You are invited to submit a stipulated sum proposal on the attached forms for General Construction Work including mechanical, plumbing, electrical, Work and for furnishing of all labor, materials, services and equipment necessary for and incidental to the Work as called for on the Drawings and in the Project Manual. The construction is expected to commence by February 1, 2023.
B. Proposers may submit a proposal for the Work either individually or combined as indicated on the Proposal Form.
C. A contract may be awarded based on the proposal offering the best value to the Owner for the Project.

1.5 BASIS OF PROPOSALS

A. Owner will be utilizing the competitive sealed proposal procurement method as authorized by Texas Government Code, Title 10, Subtitle F., Chapter 2269, Subchapter D. The selection criteria used to evaluate each proposer's proposal is stipulated below in paragraph "D. Selection Criteria and Points."
B. The construction cost budget for this Project is $6,000,000.00.
C. Proposals shall be made on a stipulated sum basis on the attached Proposal Forms.
D. Selection Criteria and Points.
    1. (0-40 points) Construction Price - Base Proposal.
    2. (0-20 points) Construction Time.
    3. (0-10 points) Resume of Project manager.
    4. (0-10 points) Resume of job superintendent.
    5. (0-10 points) Past and current experience on Projects of similar scope, size, complexity, and location. Include the following information: Owner, Project Name, Date Completed, Project Duration, Proposal Cost, Final Cost, Project Manager and Job Superintendent. If a current employee constructed the Project while working for a different employer clearly delineate that relationship.


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6. (0-10 points) List of all litigation, claims, or lawsuits made against your company, an Owner or Architect in which you were the contractor, including any Projects that your company failed to fulfill the terms of the contract with an Owner in the last five years. Provide status of each.
7. Letter of Intent to issue Performance and Payment Bonds from proposer's bonding company listing availability of current bonding capacity and amount of Work currently under bond.
8. Ranking and selection of the proposers will be based on the scoring and evaluation of the listed selection criteria determined to provide the best value to the Owner.

E. Additional Requirements
1. For the Project Manager and Job Superintendent, provide the following for each:
   a. Daily responsibilities for the Project.
   b. Formal education level.
   c. History of Work experience.
   d. Personal references including name, position, owner, current telephone number and email address.
2. In addition to requirements of the proposal documents, Owner may require additional information to establish responsibility of Proposer. Owner may further require identification of proposed subcontractors, suppliers and/or other persons and/or organizations proposed for portions of the Work and substantial data to determine their qualifications and experience. If requested, Proposer must submit all data to the Owner. Owner may also consider and use as part of the evaluation the operating costs, maintenance requirements, performance data and guarantees of major items of material and equipment proposed for incorporation in the Work when such data is required to be submitted in the proposal documents or prior to the award of the contract.
3. Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any proposal and to establish the responsibility, qualifications, and financial ability of Proposer, proposed subcontractors, suppliers and other persons and organizations to perform and furnish the Work in accordance with the proposal documents to Owner's satisfaction within the prescribed time.

## 1.6 SUBMISSION OF PROPOSALS

A. Address to: City of Midland
Attn: City Secretary's Office
300 North Loraine Street
Midland, TX 79701
or Mail to:

B. Location: City of Midland
Attn: City Secretary's Office
P.O. Box 1152
Midland, TX 79702

C. Date: December 20, 2023

D. Time: 2:00 p.m., local time.

E. Proposals received after the submission time on the due date will not be accepted and will be returned unopened to Proposer.


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1.7 PROPOSAL DOCUMENTS

A. Proposal Documents may be examined at the Architect's office and at the following plan rooms:
   1. Dodge Data & Analytics
      806.794.2722
      Kim.mccallon@construction.com
   2. AGC Plan Room
      4500 W Illinois, Suite 201
      Midland, Texas 79703
      432.520.2220
      midland@wtagc.org
   3. Odessa Plan Room
      2706 Henderson
      Odessa, Texas 79764
      432.337.0912
      Odessaplanroom@gmail.com
   4. AGC-Abilene
      3125 S. 27th
      Abilene, Texas 79605
      325.676.7447
      wtagc@sbcglobal.net

B. Proposers may secure copies of Proposal Documents as follows:
   1. By contacting Pam Gonzales at pgonzales@parkhill.com. Additional information can be found at https://parkhill.com/projects-for-bid.
   2. Download documents (.PDF file extension format) from Parkhill's Info Exchange web site after registering as a plan holder with issuing Parkhill office. There is no cost or deposit required for this option.

C. Only Proposers who obtain Proposal Documents through Parkhill will be registered as a document holder (plan holder) and will therefore automatically receive addenda if/when issued.

1.8 ADDENDA

A. Addenda will be issued to document holders by 1 of the 2 following methods:
   1. E-mail notification to document holder with link to download addenda from Parkhill's Info Exchange web site.
   2. For document holders not having e-mail address, addenda may be picked up at the issuing Parkhill office or mailed via the United States Postal Service (USPS).

B. Addenda will not be faxed to document holders.

1.9 PRE-PROPOSAL CONFERENCE

A. A pre-proposal conference will be held on Tuesday, November 21, 2023 at the Project site at 2:00 p.m. local time. Attendance by Proposers is not mandatory.

1.10 PROPOSAL SECURITY

A. Proposal security in the sum of 5 percent of the total proposal amount and in the form of a cashier's check, certified check, or Surety Proposal Bond, shall accompany all proposals as stipulated in the Instructions to Proposers.


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1.11 OPENING OF PROPOSALS

A. Proposals will be publicly opened in the City Council Chambers immediately after closing of proposal time to identify the names of the proposer and their respective proposed contract amount. Other contents of the proposals will be afforded security sufficient to preclude disclosure of contents prior to award or rejection action.

B. After opening the Proposals, the Owner will evaluate and rank each Proposal with respect to the published selection criteria described in section titled BASIS OF PROPOSALS. After opening and ranking, an award may be made on the basis of the initially submitted Proposal, without discussion, clarification or modification, or the Owner may discuss with the selected proposer, offers for cost adjustment and other elements of the Proposal. Other than the data read at the Proposal opening, the Owner shall not disclose any information derived from the Proposals submitted by competing firms in conducting such discussions.

C. If the Owner determines that it is unable to reach a satisfactory agreement with the first ranked proposer, the Owner will terminate discussions with that proposer. The Owner will then proceed with negotiations with each successive proposer as they appear in the order of ranking until an agreement is reached, or until the Owner has rejected all Proposals. After termination of discussions with any proposer, Owner will not resume discussions with that proposer.

D. The Owner reserves the right to accept or reject any or all alternates or to accept any combination of alternates considered advantageous to the Owner.

E. The award or rejection action regarding this Proposal is at the sole discretion of the Owner and the Owner makes no warranty regarding this Proposal that a contract will be awarded to any proposer.

F. The Owner agrees that if the Contract is awarded, it will be awarded to the proposer offering the best value to the Owner. The Owner is not bound to accept the lowest priced Proposal if that Proposal is judged not to be the best value for the Owner, as determined by the Owner.

1.12 FORMALITIES

A. The City of Midland reserves the right to waive irregularities and to reject all proposals.

1.13 APPLICABLE GOVERNING LAWS AND REGULATIONS

A. In accordance with the Instruction to Proposers, all proposers shall comply with State Labor Laws concerning wage rates Texas Family Code concerning affidavit of eligibility to submit proposals non-discrimination in employment and employment of historically underutilized businesses.

END OF SECTION

# DOCUMENT 00 21 16 - INSTRUCTIONS TO PROPOSERS

ARTICLE 1 - DEFINITIONS

1.1 Proposal Documents include the Proposal Requirements and the proposed Contract Documents. The Proposal Requirements consist of the Request for Proposals, Instructions to Proposers, the proposal form, and other sample proposal and contract forms. The proposed Contract Documents consist of the form of Agreement between the Owner and Contractor, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications and all Addenda issued prior to execution of the Contract.

1.2 Definitions set forth in the General Conditions of the Contract for Construction, or in other Contract Documents are applicable to the Proposal Documents.

1.3 Addenda are written, or graphic instruments issued by the Architect prior to the execution of the Contract which modify or interpret the Proposal Documents by additions, deletions, clarifications or corrections.

1.4 A Proposal is a complete and properly signed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Proposal Documents.

1.5 The Base Proposal is the sum stated in the Proposal for which the Proposer offers to perform the Work described in the Proposal Documents as the base, to which Work may be added or from which Work may be deleted for sums stated in Alternate Proposals.

1.6 An Alternate Proposal (or Alternate) is an amount stated in the Proposal to be added to or deducted from the amount of the Base Proposal if the corresponding change in the Work, as described in the Proposal Documents, is accepted.

1.8 A Proposer is a person or entity who submits a Proposal.

1.9 A Sub-proposer is a person or entity who submits a proposal to a Proposer for materials, equipment or labor for a portion of the Work.

ARTICLE 2 - PROPOSER'S REPRESENTATIONS

2.1 The Proposer, by making a Proposal, represents that:

2.1.1 The Proposer has read and understands the Proposal Documents and the Proposal is made in accordance therewith.

2.1.2 The Proposer has read and understands the Proposal Documents or contract documents, to the extent that such documentation relates to the Work for which the Proposal is submitted.

2.1.3 The Proposer has visited the site, become familiar with local conditions under which the Work is to be performed and has correlated the Proposer's personal observations with the requirements of the proposed Contract Documents.

2.1.4 The Proposal is based upon the materials, equipment and systems required by the Proposal Documents without exception.

2.1.5 By submitting proposal, each proposer agrees to waive any claim it has or may have against the Owner, the Architect, the Engineer and their respective employees and offices, arising out of or in connection with the administration, evaluation, or recommendation of any proposal; waiver of any requirements under the Proposal Documents; or the Contract Documents; acceptance or rejection of any proposals; and award of the Contract.

ARTICLE 3 - PROPOSAL DOCUMENTS

3.1 COPIES

3.1.1 Proposal may obtain complete sets of the Proposal Documents from Parkhill as stated in Request for Proposals.

3.1.5 Proposal Documents will be issued directly to Subproposers or others unless specifically offered in Request for Proposals.

3.1.6 Proposers shall use complete sets of Proposal Documents in preparing Proposals; neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Proposal Documents.

3.1.7 In making copies of the Proposal Documents available on the above terms, the Owner and the Architect do so only for the purpose of obtaining Proposals on the Work and do not confer a license or grant permission for any other use of the Proposal Documents.


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3.2 INTERPRETATION OR CORRECTION OF PROPOSAL DOCUMENTS

3.2.1 The Proposer shall carefully study and compare the Proposal Documents with each other, and with other work being proposal concurrently or presently under construction to the extent that it relates to the Work for which the Proposal is submitted, shall examine the site and local conditions, and shall at once report to the Architect errors, inconsistencies or ambiguities discovered.

3.2.2 Proposers and Sub-proposers requiring clarification or interpretation of the Proposal Documents shall make a written request which shall reach the Architect at least seven days prior to the date for receipt of Proposals.

3.2.3 Interpretations, corrections and changes of the Proposal Documents will be made by Addendum. Interpretations, corrections and changes of the Proposal Documents made in another manner will not be binding, and Proposers shall not rely upon them.

3.3 SUBSTITUTIONS

3.3.1 The materials, products and equipment described in the Proposal Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution.

3.3.2 No substitution will be considered prior to receipt of Proposals unless written request for approval has been received by the Architect at least 7 days prior to the date for receipt of Proposals. Such requests shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitution including Drawings, performance and test data, and other information necessary for an evaluation. An item by item (line by line) comparison of each item listed in the specification shall be compiled and submitted comparing specified material/product with proposed substitution. A statement setting forth changes in other material, equipment or other portions of the Work including changes in the work of other contracts that incorporation of the proposed substitution would require shall be included. The burden of proof of the merit of the proposed substitution is upon the proposer. Architect's approval is for manufacturer only, and not specific material, system or equipment. Approved manufacturer's material, system or equipment is subject to additional and final review after award of contract and submitted for Architect's approval during Construction Administration submittal/shop drawing review process. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

3.3.3 If the Architect approves a proposed substitution prior to receipt of Proposals, such approval will be set forth in an Addendum. Proposers shall not rely upon approvals made in any other manner.

3.4 ADDENDA

3.4.1 Addenda will be issued via the Architect's Newforma Info Exchange website or via mail (if internet service is not available) to all who are known by the issuing office to have received a complete set of Proposal Documents.

3.4.2 Copies of Addenda will be made available for inspection wherever Proposal Documents are on file for that purpose.

3.4.3 No Addenda will be issued later than 2 days prior to the date for receipt of Proposals except an Addendum withdrawing the request for Proposals or one which includes postponement of the date for receipt of Proposals.

3.4.4 Only Proposers who obtain Proposal Documents through Parkhill will be registered as a document holder (plan holder) and will therefore automatically receive addenda if/when issued.

3.4.5 Each Proposer shall ascertain, prior to submitting a Proposal, that the Proposer has received all Addenda issued, and the Proposer shall acknowledge their receipt in the Proposal.

ARTICLE 4 - PROPOSAL PROCEDURES

4.1 FORM AND STYLE OF PROPOSALS

4.1.1 Proposals shall be submitted on forms identical to the form included with the Proposal Documents.

4.1.2 All blanks on the proposal form shall be filled in by typewriter or manually, in ink.

4.1.3 Where so indicated by the makeup of the proposal form, sums shall be expressed in both words and figures, and in case of discrepancy between the two, the amount written in words shall govern.

4.1.4 Interlineations, alterations and erasures must be initialed by the signer of the Proposal.

4.1.5 All requested Alternates shall be proposed. If no change in cost to the Base Proposal is required, mark "No Change."


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4.1.5 Where two or more Proposals for designated portions of the Work have been requested, the Proposer may, without forfeiture of the proposal security, state the Proposer's refusal to accept award of less than the combination of Proposals stipulated by the Proposer. The Proposer shall make no additional stipulations on the proposal form nor qualify the Proposal in any other manner.

4.1.6 Each copy of the Proposal shall include the legal name of the Proposer and a statement that the Proposer is a sole proprietor, partnership, corporation or other legal entity. Each copy shall be signed by the person or persons legally authorized to bind the Proposer to a contract. A Proposal by a corporation shall further give the state of incorporation and have the corporate seal affixed. A Proposal submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Proposer.

4.1.8 All costs associated with the preparation, submission and delivery of Proposal is the sole responsibility of the Proposer.

4.2 PROPOSAL SECURITY

4.2.1 Each Proposal shall be accompanied by a proposal security as stipulated in the Request for Proposals, in the form and amount required, pledging that the Proposer will enter into a Contract with the Owner on the terms stated in the Proposal and will furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Proposer refuse to enter into such Contract or fail to furnish such bonds, the amount of the proposal security shall be forfeited to the Owner as liquidated damages, not as a penalty. The amount of the proposal security shall not be forfeited to the Owner in the event the Owner fails to comply with Subparagraph 6.2.1.

4.2.2 The surety bond shall be written on AIA Document A310, Proposal Bond, or a similar standard form of the Surety, and the attorney-in-fact who executes the bond on behalf of the Surety, shall affix to the bond a certified and current copy of the power of attorney.

4.2.3 The Owner will have the right to retain the proposal security of Proposers to whom an award is being considered until either (a) the Contract has been executed and bonds have been furnished, or (b) the specified time has elapsed so that Proposals may be withdrawn, or (c) all Proposals have been rejected.

4.3 SUBMISSION OF PROPOSALS

4.3.1 All copies of the Proposal, the proposal security and other documents required to be submitted with the Proposal shall be enclosed in a sealed opaque envelope. The envelope shall be addressed as indicated in the Request for Proposals and shall be identified with the Project name, the Proposer's name, and address and, if applicable, the designated portion of the Work for which the Proposal is submitted. If the Proposal is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED PROPOSAL ENCLOSED" on the face thereof.

4.3.2 Proposals shall be deposited at the designated location prior to the time and date for receipt of Proposals. Proposals received after the time and date for receipt of Proposals will be returned unopened.

4.3.3 The Proposer shall assume full responsibility for timely delivery at the location designated for receipt of Proposals.

4.3.4 Oral, telephonic or telegraphic Proposals are invalid and will not receive consideration.

4.3.5 The Proposer shall be responsible for all costs associated with preparing the Proposal Document response. The Owner and Architect shall not incur any costs associated with the production and printing of the Proposal Document and post proposal information.

4.3.6 The Proposer shall prepare 6hard copies and 1 copy in pdf. on a USB flash drive of his proposal information which will be sealed in an opaque envelope.

4.4 MODIFICATION OR WITHDRAWAL OF PROPOSAL

4.4.1 A Proposal may not be modified, withdrawn, or canceled by the Proposer during the stipulated time period following the time and date designated for the receipt of Proposals, and each Proposer so agrees in submitting a Proposal.


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4.4.2 Prior to the time and date designated for receipt of Proposals, a Proposal submitted may be modified or withdrawn by notice to the party receiving Proposals at the place designated for receipt of Proposals. Such notice shall be in writing over the signature of the Proposer or by telegram; if by telegram, written confirmation over the signature of the Proposer shall be mailed and postmarked on or before the date and time set for receipt of Proposals. A change shall be so worded as not to reveal the amount of the original Proposal.

4.4.3 Withdrawn Proposals may be resubmitted up to the date and time designated for the receipt of Proposals provided that they are then fully in conformance with these Instructions to Proposers.

ARTICLE 5 - CONSIDERATION OF PROPOSALS

5.1 OPENING OF PROPOSALS

5.1.1 As stated in the Request for Proposals, the properly identified Proposals, received on time, will be opened publicly and will be read aloud. An abstract of the same information may, at the discretion of the Owner, be made available to the Proposers within a reasonable time.

5.2 REJECTION OF PROPOSALS

5.2.1 The Owner shall have the right to reject any, or all Proposals, reject a Proposal not accompanied by a required proposal security, or by other data required by the Proposal Documents, or reject a Proposal which is in any way incomplete or irregular.

5.3 ACCEPTANCE OF PROPOSAL (AWARD)

5.3.1 It is the intent of the Owner to award a Contract to the lowest responsible Proposer provided the Proposal has been submitted in accordance with the requirements of the Proposal Documents and does not exceed the funds available. The Owner shall have the right to waive informalities or irregularities in a Proposal received and to accept the Proposal which, in the Owner's judgment, is in the Owner's own best interests. The issuance of this request for proposals does not obligate the Owner to enter into a contract.

5.3.2 The Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Proposal Documents, and to determine the low Proposer on the basis of the sum of the Base Proposal and Alternates accepted.

5.3.3 Each proposer agrees to waive any claim it has or may have against the Owner, the Architect, and their respective employees, arising out of or in connection with the administration, evaluation, or recommendation of any proposal.

ARTICLE 6 - POST-PROPOSAL INFORMATION

6.1 CONTRACTOR'S QUALIFICATION STATEMENT

6.1.1 Proposers to whom award of a Contract is under consideration shall submit to the Architect, upon request, a properly executed AIA Document A305-2020, Contractor's Qualification Statement, Exhibit A, Exhibit B (except for paragraph B.1) and Exhibit C (except for paragraph C.2). Exhibits D and E are not required.

6.2 OWNER'S FINANCIAL CAPABILITY

6.2.1 The Owner shall, at the request of the Proposer to whom an award of a Contract is under consideration and no later than seven days prior to the expiration of the time for withdrawal of Proposals, furnish to the Proposer reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. Unless such reasonable evidence is furnished, the Proposer will not be required to execute the Agreement between the Owner and Contractor.

6.3 SUBMITTALS

6.3.1 The Proposer shall, as soon as practicable, after notification of selection for the award of a Contract, furnish to the Owner through the Architect in writing:

6.3.1.1 a designation of the Work to be performed with the Proposer's own forces:

6.3.1.2 names of the manufacturers, products and the suppliers of principal items or systems of materials and equipment proposed for the Work; and

6.3.1.3 names of subcontractors, persons, or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work.

6.3.2 The Proposer will be required to establish, to the satisfaction of the Architect and Owner, the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Proposal Documents.


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6.3.3 Prior to the award of the Contract, the Architect will notify the Proposer in writing if either the Owner or Architect, after due investigation, has reasonable objection to a person or entity proposed by the Proposer. If the Owner or Architect has reasonable objection to a proposed person or entity, the Proposer may, at the Proposer's option, (1) withdraw the Proposal, or (2) submit an acceptable substitute person or entity, with an adjustment in the Base Proposal or Alternate Proposal to cover the difference in cost occasioned by such substitution. The Owner may, accept the adjusted proposal price or disqualify, the Proposer. In the event of either withdrawal or disqualification, proposal security will not be forfeited.

6.3.4 Persons and entities proposed by the Proposer and to whom the Owner and Architect have made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner and Architect.

ARTICLE 7 - PERFORMANCE BOND AND PAYMENT BOND

7.1 BOND REQUIREMENTS

7.1.1 The Proposer shall furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder.

7.1.2 The cost shall be included in the Proposal.

7.2 TIME OF DELIVERY AND FORM OF BONDS

7.2.1 The Proposer shall deliver the required bonds to the Owner prior to the execution of the Contract.

7.2.2 The bonds shall be written on AIA Document A312, Performance Bond and Payment Bond or the Bonding Company's standard bond forms. Both bonds shall be written in the amount of the Contract Sum.

7.2.3 The bonds shall be dated on or after the date of the Contract.

7.2.4 The Proposer shall require the attorney-in-fact who executes the required bonds on behalf of the surety, to affix thereto a certified and current copy of the power of attorney.

ARTICLE 8 - INSURANCE

8.1 INSURANCE REQUIREMENTS

8.1.1 The Proposer shall furnish insurance in the types and amount of coverage required, and shall be secured from sources as defined in the Owner/Contractor Agreement.

8.1.2 The cost shall be included in the Proposal.

8.2 TIME OF DELIVERY AND FORM OF INSURANCE

8.2.1 The Proposer shall deliver the required certificates of insurance coverage to the Owner upon its execution of the Contract.

8.2.2 The insurance certificate shall be written on a form acceptable to the Owner. Insurance shall be written in the amount required by the Contract.

8.2.3 The insurance certificates shall be dated on or before the date of the Contract.

ARTICLE 9 - FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

9.1 FORM TO BE USED

9.1.1 The Agreement for the Work will be written on Owner provided document.

ARTICLE 10 - APPLICABLE GOVERNING LAWS AND REGULATIONS

10.1 WAGE RATES

10.1.1 All Contractors must comply with State Labor Laws as required by current amended provisions of Section 2 of Article 5159a, Texas Civil Statutes. Contractor is required to pay not less than the specified minimum wage rates of the various applicable classes of labor.

10.1.2 The Contractor shall forfeit as a penalty to the State, sixty dollars ($60.00) for each laborer, workman or mechanic employed for each calendar day or portion thereof, if such laborer, workman or mechanic is paid less than the said stipulated rates for any work done under said contract, by Contractor or by their subcontractor.


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10.4 NON-DISCRIMINATION

10.4.2 During the proposal and performance of this Contract, the Contractor agrees as follows:

10.4.2.1 The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, or national origin. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, sex, religion, age, or national origin. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees or applicants for employment, notices to be provided setting forth the provisions of this non-discrimination article.

10.5 HISTORICALLY UNDERUTILIZED BUSINESS

10.5.2 The Contractor shall include a "Historically Underutilized Business Policy Statement" in all subcontracts pertaining to the Work as follows:

City of Midland is committed to make efforts to assist Historically Underutilized Businesses (HUBs) to receive at least thirty percent (30%) of the total value of all contract awards issued by the state. Therefore, HUBs qualified to do so are encouraged to propose; and all business that propose are encouraged to give particular attention in preparing their proposals to include HUBs as subcontractors and material suppliers at any tier for a total value of at least 30% of the amount of their proposal. **Each proposer is required to state in its proposal (HUB Proposal Supplement) the percentage of the proposal amount represented by women owned HUBs, the percentage represented by minority-owned HUBs, and the combined total of each.**

HUB Subcontracting Program Reporting Policy, Responsibilities at the time of award:

The State of Texas operates under the basic principles of free and vigorous competition. In accordance with House Bill 2626, 73rd Legislature, all state agencies are to give a good faith effort to award at least thirty percent (30%) of the total value of all contracts to certified HUBs. Achievement of the goal may be reached by the state contracting directly with HUB vendors or by the state's general contractors establishing contracts with HUB vendors as subcontractors, suppliers or material providers.

All contractors are required to prepare the reporting forms within the designated time period stated on each form to assist City of Midland's efforts to document HUB vendor usage. Contractors that have demonstrated past HUB participation are still expected to provide documentation at the prescribed times.

General Services Commission (GSC) will assist contractors in identifying HUB businesses, call 512.463.3612. If contractors have difficulty in obtaining HUB vendors or meeting the goal targeted, contractor will be required to provide City of Midland with information under the good faith effort criteria listed below:

Delivery of a written notice to all HUB Subcontractors or Suppliers identified on the GSC HUB Certification Directory, contractor group listings, State Agency listings, other government agencies listings, and to any local HUB who requested information on the job. The notice will contain (1) adequate information about the plans, specifications, and requirements of the Contract and Subcontract work, and (2) a contact person within the Contractor's office to answer questions.

Provide documentation on the type of solicitations made for HUB participation, include records, and submit evidence of correspondence and responses from HUBs. In accordance with normal industry practices, divide contract into small, economically feasible segments which could be performed by HUBs, include dollar amount offered to HUB.

Evidence of the steps taken to assist in financing, bonding, and technical assistance services for HUBs where HUBs are otherwise qualified and information as to the Contractors bonding requirements, the procedure for obtaining any needed bond, and the telephone number of one or more acceptable surety companies contacted. Provide an explanation for rejection to any HUB whose proposal is rejected, unless another HUB is accepted for the same work, as follows: (1) where price competitiveness is not the reason, a written rejection notice will include the reason for rejection, and (2) where price competitiveness is the reason, a meeting will be held, if requested, with the price-rejected HUB to discuss the rejection.


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10.5.3 City of Midland will review and evaluate the above documentation on the basis of demonstrated "good faith effort". Additional positive efforts or technical assistance may be provided and/or suggested by GSC. GSC will assist contractors in affirmative action plans to achieve the state's HUB contracting goal, call .512.463.3612.

10.5.4 An Historically Underutilized Business is defined by stature as (a) a corporation formed for profit in which at least 51 percent of the equity is owned by one or more women or Black, Hispanic, Asian Pacific, or Indian Americans, (b) a sole proprietorship 100 percent owned, operated, and controlled by such person(s), (c) a partnership in which such person(s) own at least 51 percent of its assets and interest and have proportionate control of partnership affairs, (d) a joint venture of HUBs, or (e) a supplier contract between an HUB and a prime contractor under which the HUB manufactures, distributes, or warehouses and ships the supplies.

10.5.5 **The proposer shall indicate in the appropriate space on the HUB Proposal Supplement whether or not the proposer meets the definition of an Historically Underutilized Business.**

10.5.6 **The proposer shall also indicate in the appropriate space on the HUB Proposal Supplement whether or not the proposer meets the following definition of a small business:**
A Small Business is a corporation, partnership, sole proprietorship or other legal entity formed for the purpose of making a profit which is independently owned and operated and has either fewer than 100 employees or less than $1,000,000 in gross annual receipts during the past calendar or fiscal year.

END OF SECTION


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# DOCUMENT 00 26 00 - PROCUREMENT SUBSTITUTION PROCEDURES

## 1.1 DEFINITIONS

A. Procurement Substitution Requests: Requests for changes in products, materials, equipment, and methods of construction from those indicated in the Procurement and Contracting Documents, submitted prior to receipt of bids.

B. Substitution Requests: Requests for changes in products, materials, equipment, and methods of construction from those indicated in the Contract Documents, submitted following Contract award. See Section 01 25 00 "Substitution Procedures" for conditions under which substitution requests will be considered following Contract award.

## 1.2 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

## 1.3 PROCUREMENT SUBSTITUTIONS

A. Procurement Substitutions, General: By submitting a bid, the Bidder represents that its bid is based on materials and equipment described in the Procurement and Contracting Documents, including Addenda. Bidders are encouraged to request approval of qualifying substitute materials and equipment when the Specifications Sections list materials and equipment by product or manufacturer name.

B. Procurement Substitution Requests will be received and considered by Owner when the following conditions are satisfied, as determined by Architect; otherwise requests will be returned without action:
   1. Extensive revisions to the Contract Documents are not required.
   2. Proposed changes are in keeping with the general intent of the Contract Documents, including the level of quality of the Work represented by the requirements therein.
   3. The request is fully documented and properly submitted.

## 1.4 SUBMITTALS

A. Procurement Substitution Request: Submit to Architect. Procurement Substitution Request must be made in writing in compliance with the following requirements:
   1. Requests for substitution of materials and equipment will be considered if received no later than 7 days prior to date of bid opening.
   2. Submittal Format: Submit 3 copies or 1 PDF copy of each written Procurement Substitution Request, using CSI Substitution Request Form 1.5C. All copies must be legible.
   3. Provide product data in a side-by-side, line-by-line review. Substitution Request Form 1.5C received without product data will be returned unanswered. Additionally, provide appropriate drawings, samples, tests, and reports as necessary to support and clarify product data. Attach all as backup data to CSI Substitution Request Form 1.5C.

B. Architect's Action:
   1. Architect may request additional information or documentation necessary for evaluation of the Procurement Substitution Request. Architect will notify all bidders of acceptance of the proposed substitute by means of an Addendum to the Procurement and Contracting Documents.

C. Architect's approval of a substitute during bidding does not relieve Contractor of the responsibility to submit required Shop Drawings and to comply with all other requirements of the Contract Documents.

END OF DOCUMENT

# SECTION 00 31 00 – AVAILABLE PROJECT INFORMATION

## PART 1 - GENERAL

1.1 SUMMARY

A. Related Sections:
1. Division 01 Specification Sections apply to Work of this Section.

1.2 INFORMATION

A. Property Survey:
1. A survey of the property was authorized by the Owner, and the survey was made by:
Parkhill
1700 W Wall Street
Midland, TX 79701
(432) 697-1447
2. Site layout, Drawings and boundary traverse and closure information included in the Drawings.
3. Property survey and site improvement layout is available for Contractor's information.

1.3 RESPONSIBILITY

A. Proposers are expected to examine the site survey information then determine for themselves the validity of the information contained there-in as it relates to this Project.
B. Architect and Owner do not guarantee continuity of conditions indicated at boring locations and assume no responsibility for variations of subsoil quality or conditions.
C. Architect and Owner assume no responsibility for variations of site survey information.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION (Not Used)

END OF SECTION


PACKET 11.660 November 14, 2023

# SECTION 00 31 32 - GEOTECHNICAL DATA

## PART 1 - GENERAL

1.1 SUMMARY

A. Related Requirements:
1. Division 01 Specification Sections apply to Work of this Section.

1.2 INFORMATION

A. Geotechnical Data:
1. An investigation of subsurface soil conditions at the construction site was authorized by Owner, and investigations at the West CCS Site were made by:

Beyond Engineering and Testing
011-B South County Road 1260
Midland, TX 79706
432.561.5780

Investigations at the North CCS Site were made by:

Terracon
10400 State Hwy 191
Miland, TX 79707
432.684.9600

2. The two reports, in their entirety, are bound at the end of this Section.

1.3 GEOTECHNICAL DATA

A. This Document with its referenced attachments is part of the Procurement and Contracting Requirements for Project. They provide Owner's information for Proposers' convenience and are intended to supplement rather than serve in lieu of [Proposers' own investigations. This Document and its attachments are not part of the Contract Documents.

B. Because subsurface conditions indicated by the soil borings are a sampling in relation to the entire construction area, and for other reasons, the Owner, Architect, Engineer, the Architect's or Engineer's consultants, and the firm reporting the subsurface conditions do not warranty the conditions below the depths of the borings or that the strata logged from the borings are necessarily typical of the entire site. Any party using the information described in the soil borings and geotechnical report shall accept full responsibility for its use.
1. The opinions expressed in this report are those of a geotechnical engineer and represent interpretations of subsoil conditions, tests, and results of analyses conducted by a geotechnical engineer. Owner is not responsible for interpretations or conclusions drawn from the data.
2. Any party using information described in the geotechnical report shall make additional test borings and conduct other exploratory operations that they may require to determine the character of subsurface materials that may be encountered.

3. Proposers are expected to examine the geotechnical data reports and then determine for themselves the validity of the information contained there-in as it relates to this Project.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

www.BeyondET.com

3011-B South County Road 1260
Midland, TX 79706
432.561.5780

January 5, 2022
*Via email: jahrlett@midlandtexas.gov*

Attn: Mr. Jeffrey Ahrlett
Director of Solid Waste
City of Midland
300 N Loraine
Midland TX 79701

**Reference:** **Geotechnical Report**
**Citizen's Collection Station**
**6400 West Highway 80**
**Midland, Texas**
BEYOND Project No. GT2111061

Dear Mr. Ahrlett:

Beyond Engineering and Testing, LLC (BEYOND) is pleased to present our geotechnical engineering study for the proposed Citizen's Collection Center project in Midland, Texas. City of Midland (Client) commissioned this geotechnical engineering study to explore and evaluate the subsurface conditions at the site, develop geotechnical design parameters, and provide related construction recommendations for the project. Our geotechnical report describes our field exploration and laboratory testing program, our engineering interpretation pertinent to the project, as well as earthwork guidelines for the project.

We appreciate the opportunity to serve you. We look forward to working with you on construction materials testing services during construction phase. Note that BEYOND is already under contract with Client for this project. As such, a simple change order is needed to approve testing services during construction phase. Please call us if you have any questions concerning this report or any of our other services.

Respectfully submitted,
**Beyond Engineering and Testing, LLC**



Appasaheb "Amar" Kadam
Project Manager, E.I.T.

# GEOTECHNICAL REPORT

**Citizen's Collection Station**
6400 WEST HIGHWAY 80
MIDLAND, TEXAS

*Prepared For:*

**City of Midland**
**300 N Loraine, Midland, Texas 79701**

*Prepared By:*

Beyond Engineering and Testing, LLC
3011-B South County Road 1260
Midland, Texas 79706

432.561.5780 | www.BEYONDET.com

January 5, 2022
BEYOND Project No. GT2111061

# Geotechnical Report

## Citizen's Collection Station

6400 WEST HIGHWAY 80
MIDLAND, TEXAS

This Report Prepared By:

**Beyond Engineering and Testing, LLC**
3011-B South County Road 1260
Midland, TX 79706

432.561.5780 | www.BeyondET.com

*Prepared by:*

Appasaheb "Amar" Kadam
Project Manager, E.I.T

STATE OF TEXAS
ALFRED H. WILLIAMS
127667
LICENSED
PROFESSIONAL ENGINEER

***01/05/2022***

*Reviewed by:*

Alfred Williams, P.E.
Geotech Department Manager

**FIRM REGISTRATION NO. F-19523 - TEXAS**

***January 5, 2022*** ***Project No. GT2111061***

**UNAUTHORIZED USE OR COPYING OF THIS DOCUMENT IS STRICTLY PROHIBITED BY ANYONE OTHER THAN THE CLIENT FOR THE SPECIFIC PROJECT.**

**Geotechnical Report**
**Citizen's Collection Station**
**Midland, Texas**

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**APPENDIX A**


Figure 1: Project Site Location Map
Figure 2: Borehole Locations Map
Figure 3: Site Vicinity Geologic Map
Log of Boring Key
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**Geotechnical Report**
**Citizen's Collection Station**
**Midland, Texas**

## 1.0 INTRODUCTION

Beyond Engineering and Testing, LLC (BEYOND) is pleased to present our subsurface exploration and geotechnical engineering evaluation for the proposed Citizen's Collection Station project. The proposed project site will be situated near 6400 West Highway 80 in Midland, Texas at GPS coordinates (31.955276, -102.159771). The approximate project location is shown on Figure 1, Project Site Location Map, within Appendix A.

The purpose of this geotechnical investigation and report is to:

- Explore subsurface conditions;
- Conduct field and laboratory testing to characterize the engineering properties of subsurface materials;
- Provide geotechnical engineering parameters for the design and construction of foundation systems;
- Provide pavement recommendations, and;
- Provide earthwork requirements.

The recommendations contained in this report are based upon field and laboratory test results, engineering analyses, experience with similar subsurface conditions, and our project understanding.

## 2.0 PROPOSED CONSTRUCTION

BEYOND understands the proposed project will comprise of Citizen's Collection Station facility which consists of 40 feet by 60 feet metal building, concrete pavement, a built-up ramp and retaining walls for roll-off drops.

## 3.0 FIELD EXPLORATION

BEYOND prepared and executed a field exploration program for the proposed project on November 19, 2021. The approximate boring locations are shown on Figure 2, Borehole Locations Map, within Appendix A of this report. A summary of approximate geographic latitude and longitude coordinates and depth of each boring drilled as part of the subsurface exploration program is presented in Table 3.0.1.

***Table 3.0.1 – Summary of Boring Locations and Depths***

| Boring No. | Latitude (degrees) | Longitude (degrees) | Total Boring Depth (feet) |
|---|---|---|---|
| B-1 | 31.955617 | -102.157978 | 19 |
| B-2 | 31.955419 | -102.158930 | 19 |
| B-3 | 31.955276 | -102.159771 | 19 |

Notes: Latitude and longitude coordinates provided in Table 3.0.1 were obtained from a hand-held GPS device with accuracy of approximate 15 to 20 feet.

BEYOND utilized air rotary drilling method to advance the boreholes. We collected samples using Standard Penetration Testing (SPT) split spoon samplers. We collected all samples from the samplers in the field, performed visual soil classification, labeled the samples as to location and depth, and bagged soil samples to minimize moisture changes. We conducted the SPT tests in general accordance with ASTM D1586: Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils. SPT test results are shown on the attached Boring Logs under the "Field Data" column and are preceded by the letter "N". SPT testing was performed using automatic hammer.

BEYOND prepared field logs for each boring drilled. The field logs contain visual classifications of the materials encountered during drilling as well as interpolation of the subsurface conditions between samples. We also observed for groundwater level in the borehole while advancing the boreholes. These observations are discussed in subsequent sections of this report.

The project engineer reviewed the field logs, samples, and laboratory data to make appropriate modifications to the field logs. BEYOND classified soils in general accordance with the Unified Soil Classification System (USCS). The soil classification symbols on the boring logs are described in the *Boring Log Key* included in Appendix A. The final logs of boring include modifications based on our laboratory test results and observations performed on the soil samples collected in the field. The final logs of boring describe the materials encountered, strata thickness, the various depths at which the samples were obtained, as well as field test results.

## 4.0 SUBSURFACE CONDITIONS

### 4.1 Regional Geology

As per the geologic Atlas of Texas, Pecos sheet, the geology at the project site and in the vicinity consists of the following.

**Quaternary Period Units**

- **Playa Deposits** (Qp)**:** Shallow, closed, depressions that have filled mainly with clay and silt, along with minor amounts of sand.
- **Windblown Cover Sand** (Qcs/Qbd)**:** Eolian deposits comprised of fine- to medium-grained sand-sized quartz grains, silty in nature, with calcareous and caliche deposits being common. Windblown sediments can reach 10 feet in thickness.

Site vicinity geologic map is shown on Figure 3 within Appendix A of this report.

### 4.2 Subsurface Stratigraphy

As indicated on our logs of borings drilled as part of this study, native soils were encountered beneath approximately 2 inches of topsoil and extended to the bottom of the boring. The native soils generally encountered are as follows:

- Loose to very dense sand with varying amounts of clay, silt and gravel.

Bedrock was not encountered in any of the borings completed as part of this study.

The above descriptions are general and depth ranges are approximate because boundaries between different strata are seldom clear and abrupt in the field. In addition, the lines separating major strata types on the logs of borings do not necessarily represent distinct lines of demarcation of the various strata. Detailed logs of borings for locations drilled as part of this study, which present the stratum descriptions, types of sampling used, laboratory test data, and additional field data, are presented in Appendix A. The Boring Log Key, defining the terms and descriptive symbols used on each log of boring, is also presented in Appendix A.

### 4.3 Groundwater Conditions

BEYOND did not encountered groundwater during drilling operations.

Based on the Texas Water Development Board (TWDB) Groundwater Database of water wells within a 0.25-mile radius from the project site locations, groundwater levels at adjacent water wells were recorded at depths of 39 to 42 feet below ground surface. These measurements are from submitted driller's well reports from 2014.

It is imperative to note that the short-term groundwater level observations performed as part of this study are not an accurate evaluation of groundwater levels at the project site and should not be interpreted as a comprehensive groundwater study. The observations made during this investigation may also not represent conditions at the time of construction and it should be understood the presence of groundwater may have an effect on certain construction activities and long-term performance of foundations and pavements. Groundwater levels are highly dependent on climatic and hydrologic conditions before and after construction, and site development including irrigation demands, drainage and other factors. If a detailed groundwater study is desired, a groundwater hydrologist should be retained to perform these services.

## 5.0 LABORATORY TESTS

BEYOND performed various laboratory tests to determine the soil's physical properties. These tests allow us to classify soils and to assess soil performance under the project design conditions. Laboratory tests are presented in each respective *Log of Boring* and in the *Summary of Laboratory Tests* in Appendix A. The project geotechnical engineer assigned appropriate laboratory tests on selected soil samples. BEYOND performed the following laboratory methods for soil analyses:

- Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System): ASTM D2487;
- Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass: ASTM D2216;
- Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils: ASTM D4318;
- Standard Test Methods for Amount of Material in Soils Finer than No. 200 (75-µm) Sieve: ASTM D1140;
- Sulfate and Chlorides Content: EPA 300/300.1;

## 5.1 Geotechnical Laboratory Test Results

Moisture content tests were performed, in accordance with ASTM D2216, on selected soil samples. The test results are provided on Logs of Boring in Appendix A of the report as well as on the Summary of Laboratory Results in Appendix A of this report.

Percent finer than No. 200 (75-µm) sieve tests were performed, in accordance with ASTM D1140, on selected soil samples. The test results are provided on Logs of Boring in Appendix A of the report as well as on the Summary of Laboratory Results in Appendix A of this report.

Laboratory test results indicate that the native clay soils have liquid limit (LL) values range from non-plastic to 39% and plastic limit (PL) value ranging from non-plastic to 23%, with Plasticity Index (PI) values ranging from about non plastic to 23%. Based on FHWA-NHI-10-016 for the method of identifying potentially expansive soils as shown in Table 5.1.1, the soils at this proposed project site possess low swell potential.

***Table 5.1.1 – Method of Identifying Potentially Expansive Soils (from FHWA-NHI-10-016)***

| Liquid Limit (%) | Plasticity Index | Potential Swell (%) | Potential Swell Classification |
|---|---|---|---|
| < 50 | < 25 | < 0.5 | Low |
| 50 to 60 | 25 to 35 | 0.5 to 1.5 | Marginal |
| > 60 | > 35 | > 1.5 | High |

The Potential Vertical Rise (PVR) is the potential ability of a soil material to swell, at a given density, moisture and loading condition, when exposed to capillary or surface water. We estimate the PVR value for lightly loaded slabs-on-grade or shallow footings to be less than 1-inch, using the TxDOT method Tex-124-E.

A summary of laboratory testing results is presented in Appendix A of this report.

## 5.2 Soil Corrosiveness

BEYOND obtained the services of Xenco Laboratories to perform analytical tests to determine the content of soluble sulfate and chloride in the soils at or near foundation bearing depths. The results of soluble sulfate and chloride content are summarized in Table 5.2.1.

***Table 5.2.1 – Results of Soluble Sulfate and Chloride Content***

| Boring No. | Depth of Sample (feet) | Soluble Chlorides (mg/kg) | Soluble Sulfate (mg/kg) |
|---|---|---|---|
| B-1 | 0 | <4.95 | <4.95 |

These test results indicate non-corrosive chloride content and negligible sulfate contents. The Xenco test results are included within Appendix A.

# 6.0 FOUNDATION DESIGN AND GEOTECHNICAL RECOMMENDATIONS

BEYOND understands the proposed Citizen's Collection Station facility consists of a 40 foot by 60 foot metal building, concrete and asphalt pavement, a built-up ramp and retaining walls for roll-off drops.

Based on the site geotechnical conditions, shallow foundations may be used to support the proposed buildings. Earthwork requirements for the proposed buildings are provided under Section 7.

We recommend that BEYOND's geotechnical engineer or our qualified representative be retained to observe shallow foundation excavations in this area to assess the need for any over-excavation and re-compaction and/or replacement.

## 6.1 Shallow Foundations

We recommend that the spread footings at the site should have a minimum embedment of 2 feet below final site grade for confinement, and the strip footings should have a minimum embedment of 1.5 feet below final site grade. The footings should bear on soils placed in accordance with Section 7 of this report. We recommend a minimum width of 12 inches for strip footings and a minimum of 24 inches for spread footings.

For our engineering analyses, we utilized the strength parameters provided in Table 6.1.1. Site grading plans for the proposed project site were not available during preparation of this report. BEYOND assumes final grade of the drop area will be approximately 1 to 6 feet higher than existing site grade.

***Table 6.1.1 – Engineering Properties of Subsurface Materials for Shallow Foundation***

| Angle of Internal Friction, $\phi$' (degree) | Total Unit Weight, $\gamma$ (pcf) | Ultimate Coefficient of Friction, $\mu$ |
|---|---|---|
| 30 | 110 | 0.35 |

Table 6.1.2 provides the values for net allowable bearing pressures against general shear failure based on a factor of safety of 3 for continuous and footings that bear on soils placed in accordance with Section 7 of this report. We estimate total footing settlement should not exceed 1-inch based on the allowable bearing pressures provided in Table 6.1.2.

***Table 6.1.2 – Allowable Bearing Pressures for Shallow Foundations***

| Footing Type | Footing Width (feet) | Footing Depth (feet) | Allowable Bearing Pressure (psf) |
|---|---|---|---|
| Continuous Footing | 1.0 | 1.5 | 1,250 |
| Continuous Footing | 1.5 | 1.5 | 1,500 |
| Spread Footing | 2.0 | 2.0 | 2,500 |
| Spread Footing | 2.0 | 3.0 | 3,500 |

Proper drainage must be maintained during construction and throughout the life of the structures to provide for improved shallow foundation performance. Other design and construction recommendations as outlined in the ACI design manual should be followed.

### 6.2 Floating Floor Slab for Building

A floating slab-on-grade is structurally independent of the spread footings. This option is also viable for the proposed building. The slab-on-grade can be supported on properly prepared subgrade in accordance with Section 7.1 of this report. A properly prepared subgrade should provide a modulus of subgrade reaction, $K_1$, of about 90 psi/inch, where $K_1$ corresponds to modulus of subgrade reaction corresponds to a 1-ft x 1-ft plate.

For square footing on cohesionless soil subgrade, the subgrade modulus value may be modified for various foundation widths based upon the following equation:

$$K_s = K_1\left[\frac{B+1}{2B}\right]^2$$

Where:

$K_s$ = adjusted modulus of subgrade reaction based on actual footing width;
$K_1$ = modulus of subgrade reaction corresponds to a 1-ft x 1-ft plate;
B = footing width (in feet)

We recommend an optional crushed stone layer of four (4) inches in thickness immediately below the floor slab. The crushed stone should meet TxDOT Item 247, Grade 3. The crushed stone will provide increased support, assist in reducing differential floor settlements, and provide uniform friction across the bottom of the slab. Most importantly, the crushed stone allows truck traffic during construction without rutting. The design team may choose to avoid the crushed stone layer. With this option, we recommend using a pump to place concrete. Using a pump avoids truck traffic on the finished subgrade.

Based on our experience of similar projects, we provide the following guidelines for concrete floor slab design and construction. The concrete specifications should require a low water/cement ratio and the concrete should be placed with a relatively dry slump. Control joints should be constructed while the concrete is relatively green, before it shrinks. Spacing for control joints should be 15 to 20 feet to control shrinkage cracks.

In order to improve aesthetics by reducing shrinkage cracks and irregular surface textures, BEYOND also recommends the following: the ready-mix concrete should arrive at the target slump and the contractor should not be allowed to add water to the mixture. Water sprayed onto the slab during 'bull floating' must be minimal; otherwise, alligator cracking of the surface may develop. If vapor barriers are used, the designer should also consider adding a thin sand cushion on top of the vapor barrier. This bedding sand allows the concrete to cure evenly from top to bottom. Other design and construction recommendations as outlined in the ACI design manual should be followed.

### 6.3 Lateral Earth Pressures

Following are recommended equivalent fluid pressures for below-grade walls using native soils or imported materials as backfill. When backfilling adjacent to retaining walls, the contractor should be careful not to over-compact soils adjacent to the wall, thus inducing additional lateral stresses on the retaining walls. Proper drainage should be provided away from the walls during all phases of construction and post-construction grading. Below grade basement walls are considered as non-yielding walls due to restrained at the top to prevent sufficient movement to develop active condition. The at-rest lateral pressures are the appropriate earth pressures to use for design of basement walls. Active earth pressure may be for walls that exhibit a certain degree of horizontal movement, such as cantilevered retaining walls.

Positive drainage should be provided to prevent the buildup of hydrostatic water pressure on the walls. To prevent hydrostatic build-up, retaining walls should incorporate a wall drain for collection and removal of surface water behind the walls. A clean, granular, fee-draining materials with no more than 5% passing the No. 200 sieve is the preferred backfill for wall drains. Acceptable backfill would be crushed material with a gradation of in general conformance with ASTM C33, No. 57 or 67 aggregate. The high permeability of such material, combined with adequate drainage, such as weepholes at the bottom of the wall, prevents hydrostatic build-up. If no positive drainage is provided, hydrostatic water pressure should be considered in the design of the walls.

Backfill materials for the retaining wall should be placed and compacted to a minimum compaction of 95% of the maximum dry density as determined by ASTM D698 and moisture conditioned within +/- 2% of optimum moisture content. The loose thickness of each layer before compacting shall not exceed 8 inches. Close to retaining walls, smaller compactors should use to prevent excessive lateral pressures against the retaining walls from stress caused by heavy compactors.

***Table 6.3.1 – Equivalent Fluid Pressures for Lateral Earth Pressures***

| Soil Type | Lateral Earth Pressure Condition | Lateral Earth Pressure Coefficient | Equivalent Fluid Pressure (psf/ft) |
|---|---|---|---|
| Native or Imported Cohesionless Soils $\phi$'=31, $\gamma_t$=115 pcf | At-Rest Condition | $k_o$=0.48 | 56 |
| | Active Condition | $k_a$=0.32 | 37 |
| | Passive Condition | $k_p$=3.12 | 360 |

The values apply only to cases where the ground surface is level. BEYOND should be contacted to provide suitable values for cases where the ground surface is sloped. These earth pressure values do not include safety factors or hydrostatic pressure. Surcharge loads should also be considered.

### 6.4 Seismic Parameters

The following seismic parameters are based on the 2015 International Building Code (IBC) and a Site Class D for this project site. The Mapped Spectral Response Acceleration for the 1 second ($S_1$) and short periods ($S_S$) were computed using the U.S. Seismic Design Maps web-based application program developed by the Applied Technology Council (ATC). Table 6.4.1 summarizes recommended seismic parameters to be used in the design:

***Table 6.4.1 Recommended Seismic Parameters***

| Parameter | Calculated Value |
|---|---|
| $S_S$ – Mapped Spectral Response Acceleration at Short Period (0.2-Second) | 0.124 g |
| $S_1$ – Mapped Spectral Response Acceleration at 1-Second Period | 0.033 g |
| $F_a$ (Site Coefficient) – Site Class D | 1.6 |
| $F_v$ (Site Coefficient) – Site Class D | 2.4 |

Note: Seismic Parameters were obtained from https://hazards.atcouncil.org/#/

## 7.0 FOUNDATION CONSTRUCTION CRITERIA

In this section, we provide various specifications and construction recommendations to allow earthwork to meet the intent of the geotechnical parameters provided in Section 6. We recommend that BEYOND be retained to provide verification testing services during construction. This allows us to verify that construction of foundation items are in compliance with our recommendations.

### 7.1 Site Preparation

Prior to construction, the contractor should establish proper and positive drainage to maintain a relatively dry condition at the proposed construction site. This will be important if any work is attempted during prolonged rainfall periods. Water ponding in construction areas should be avoided.

Winter weather conditions can also impact the construction process. Newly placed fill should not be placed on frozen subgrade and frozen material should not be used for fill.

Site preparation should begin by removing surface debris, vegetation, organic topsoil, loose soil and major root systems, if any. Compact resulting subgrade and verify stability using a proof-roll test. Conduct a proof-roll tests using a loaded dump truck or loaded double-axle water truck with a minimum weight of 20 tons. Passing proof-roll tests must show less than ½-inch deflection and no area pumping. Any soft spots or areas that exhibit pumping should be excavated and re-compacted to a minimum compaction of 98% of the maximum dry density as determined by ASTM D698 and moisture conditioned within +/- 2% of optimum moisture content.

The base of each foundation excavation should be observed by the geotechnical engineer or a qualified representative prior to foundation installation.

### 7.2 Select Fill Below Foundation and Floor Slab

Select non-expansive fill material placed within foundation and floor slab areas should meet one of the following soil classifications: SC-SM, SM, SC, CL, GC or GW-GC. In addition, select fill shall possess a plasticity index, PI of less than 18 and shall not possess particle sizes greater than 3-inches. Native soils within the upper 5 feet below existing site grade may be used as select fill. Additional testing should be performed during construction to verify the suitability of native soils as select fill.

Select fill below the foundation should be placed in loose lifts not exceeding 8-inches and should be compacted to a minimum compaction of 98% of the maximum dry density as determined by ASTM D698 and moisture conditioned within +/- 2% of optimum moisture content for cohesive soils or moisture conditioned within +/- 3% of optimum moisture content for cohesionless soils. Compacted backfill density should be verified by nuclear density tests, with at least one test per 2,500 square feet for each lift under buildings and one test per 5,000 square feet in other areas.

### 7.3 Shallow Foundation Construction

The following construction criteria and general guidance should be observed during shallow foundation construction:

1. Remove loose soils from footing excavations. Do not allow loose, excavated soils from the footings to be spread out within the building pad. These loose soils will cause differential settlements.

2. Excavations for footings should be accomplished with a smooth-mouthed bucket. If a toothed bucket is used, excavation with this bucket should be terminated a few inches above final grade and the excavation completed with a smooth-mouthed bucket or by manual labor. Debris or loose material in the bottom of the excavation should be re-compacted or removed prior to placing concrete. This is especially important along footing excavations.

3. The foundation excavation should be sloped sufficiently to create internal sumps for runoff collection and removal. Foundation excavations subject to rainfall and possible deterioration from accumulated water should be protected using a protective "mud-slab" (concrete). If surface runoff water or groundwater seepage accumulates at the bottom of the foundation excavation, it should be collected and removed and not allowed to adversely affect the quality of the bearing surface.

4. The foundation excavations should be checked for size and cleaned of loose material and debris prior to the placement of reinforcing steel. Precautions should be taken during the placement of reinforcement and concrete to prevent the loose excavated material from falling into the excavation.

5. Prior to the placement of concrete, any water must be removed from the foundation excavation.

6. Prompt placement of concrete in the excavation as it is completed, cleaned, and observed is strongly recommended.

### 7.4 Open Excavations

Temporary construction slopes and/or permanent embankment slopes should be protected from surface runoff water. Site grading should be designed to allow drainage at planned areas where erosion protection is provided, instead of allowing surface water to flow down unprotected slopes. Surcharge loads, either static or dynamic, should not be applied to an excavation slope. Construction equipment should be prevented from traveling along or near the top of the excavation slope. Monitoring of temporary slopes, trenches, and dewatering during construction should be undertaken by the contractor to detect early warnings of movement within slopes, structures, pavements, etc.

In all cases of excavations in soils, sloped excavations and trench shields are required for excavations greater than four feet in depth. The contractor's "Competent Person" (as defined by OSHA) must inspect each trench to determine the type of bench or slope that is actually required. With all excavations, only a "competent person" shall determine whether sloped, benched, or trench shields can be used. OSHA and applicable state and local standards should be observed and followed. Site safety is the responsibility of the contractor.

### 7.5 Drainage

Proper drainage should be provided away from the foundation elements during all phases of construction and post-construction grading. Proper drainage is essential to the long-term stability of the structure. Ponding of water near the foundation elements from improper drainage should not be permitted. Downspouts should use splash blocks that divert water away from the foundation. Planters near buildings should be lined and should not allow saturation of soils near the foundation.

## 8.0 PAVEMENTS

The proposed pavement sections presented here are calculated based solely on engineering structural parameters. Construction cost is not included in this analysis. Daily traffic volume or 18-kips Equivalent Single-Axle Loads (ESALs) for the proposed pavement was not available during preparation of this report. We anticipate traffic will mainly consist of passenger cars, pick-up trucks and haul trucks to transport the trash receptacles. We understand the facility will utilize the pavement sections outlined in Table 8.1.1. Based on the proposed pavement sections and assumptions below we have calculated the estimated ESAL's that the pavement can support over a design life of 20 years.

### 8.1 Design Recommendations for Pavements

BEYOND calculated pavement section options in accordance with the *AASHTO Guide for Design of Pavement Structures 1993*. For pavement analysis we assumed the following parameters:

- Design life: 20 years;
- Reliability: 85% (Flexible) or 90% (Rigid);
- Overall Standard Deviation: 0.45 (Flexible) or 0.35 (Rigid);
- Initial Serviceability: 4.2 (Flexible) or 4.5 (Rigid);
- Terminal Serviceability: 2.0 (Flexible) or 2.5 (Rigid);
- Assumed CBR-value: 6.0
- Design Resilient Modulus (psi): 8,000
- Asphaltic Concrete: Layer structural coefficient of 0.44, and a drainage coefficient of 1.0; and
- Untreated Base Course: Layer structural coefficient of 0.14, and a drainage coefficient of 1.0.
- Concrete compressive strength: 3,500 psi

Table 8.1.1 presents our pavement sections based on our assumed design parameters.

***Table 8.1.1 Recommended Pavement Section***

| Option | Estimated ESAL's | Concrete Thickness (inches) | HMAC Thickness (inches) | Untreated Aggregate Base Course Thickness (inches) |
|---|---|---|---|---|
| Light Duty Asphalt | 25,000 | -- | 2.0 | 6.0 |
| Heavy Duty Asphalt | 275,000 | -- | 3.0 | 9.0 |
| Concrete Pavement | 900,000 | 8.0 | -- | 6.0 |

The concrete pavement should be designed by the Civil Engineer to have proper reinforcement. As a general guideline, a minimum of #3 reinforcing bars at 18 inches on-center-each-way (OCEW) is recommended for the proposed concrete pavement.

## 8.2 Material Specifications

The pavement should be specified, constructed, and tested to meet the following requirements:

1. *Natural Subgrade* – Remove all vegetation and construction debris. Scarify the resulting subgrade to at least 12 inches, moisture condition and compact to a minimum of 98% of the maximum density per ASTM D698 and moisture conditioned within +/- 2% of optimum moisture content for cohesive soils or moisture conditioned within +/- 3% of optimum moisture content for cohesionless soils. The compacted surface shall be proof-rolled using a loaded tandem-axle dump truck or water truck of 25 tons or heavier. Passing proof-roll tests must show less than 1-inch deflection and no area pumping. Soft spots or areas exhibiting pumping should be excavated and re-compacted. Use select fill placed in accordance with Section 7.3 to reach final target site grade.
2. *Crushed Limestone Base Material (Flexible Base)* - Crushed rock as per Texas Department of Transportation, Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges (2014), Item 247, **Grade 2** or better. The material should be compacted to a minimum of **95%** of the maximum density as per **ASTM D1557**.
3. *Portland Cement Concrete* - BEYOND recommends using a TxDOT **Class P** concrete mix design, or similar.
4. *HMAC* – **Type B** Hot Mix Asphaltic Concrete surface course. This material should meet TxDOT Item 340 specifications.
5. *Prime Coat* – Texas Department of Transportation Item 310.

## 9.0 LIMITATIONS

Recommendations contained in this report are based on our field observations and subsurface explorations, limited laboratory tests, and our present knowledge of the proposed construction. It is possible that soil conditions will vary between or beyond the points explored. If soil conditions are encountered that differ from those described herein, we should be notified immediately. If the scope of the proposed design or construction changes from that described in this report, our data should also be reviewed.

We prepared this report in substantial compliance with the generally accepted geotechnical engineering practice, as it exists in the area at the time of our study. No warranty is expressed or implied. The recommendations provided in this report are based on the assumption that BEYOND will conduct an adequate program of tests and observations during the construction phase in order to evaluate compliance with our recommendations.

This report may be used only by the client, their design team, and only for the purposes stated, within three years from its issuance. Land use, site conditions (both on site and off site) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use this Report shall notify BEYOND of such intended use. Based on the intended use of the report, BEYOND may require that additional work

be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release BEYOND from any liability resulting from the use of this report by any unauthorized party.

This is a geotechnical engineering report and is not intended to provide information about possible contaminated soils or the locations of any abandoned underground storage tanks. The owner should consult with an environmental specialist to determine whether this site is suitable from an environmental perspective.

Other standards or documents referenced in any given standard cited in this report, or otherwise relied upon by the authors of this report, are only mentioned in the given standard; they are not incorporated into it or "included by reference," as that latter term is used relative to contracts or other matters of law**.**

# APPENDIX A

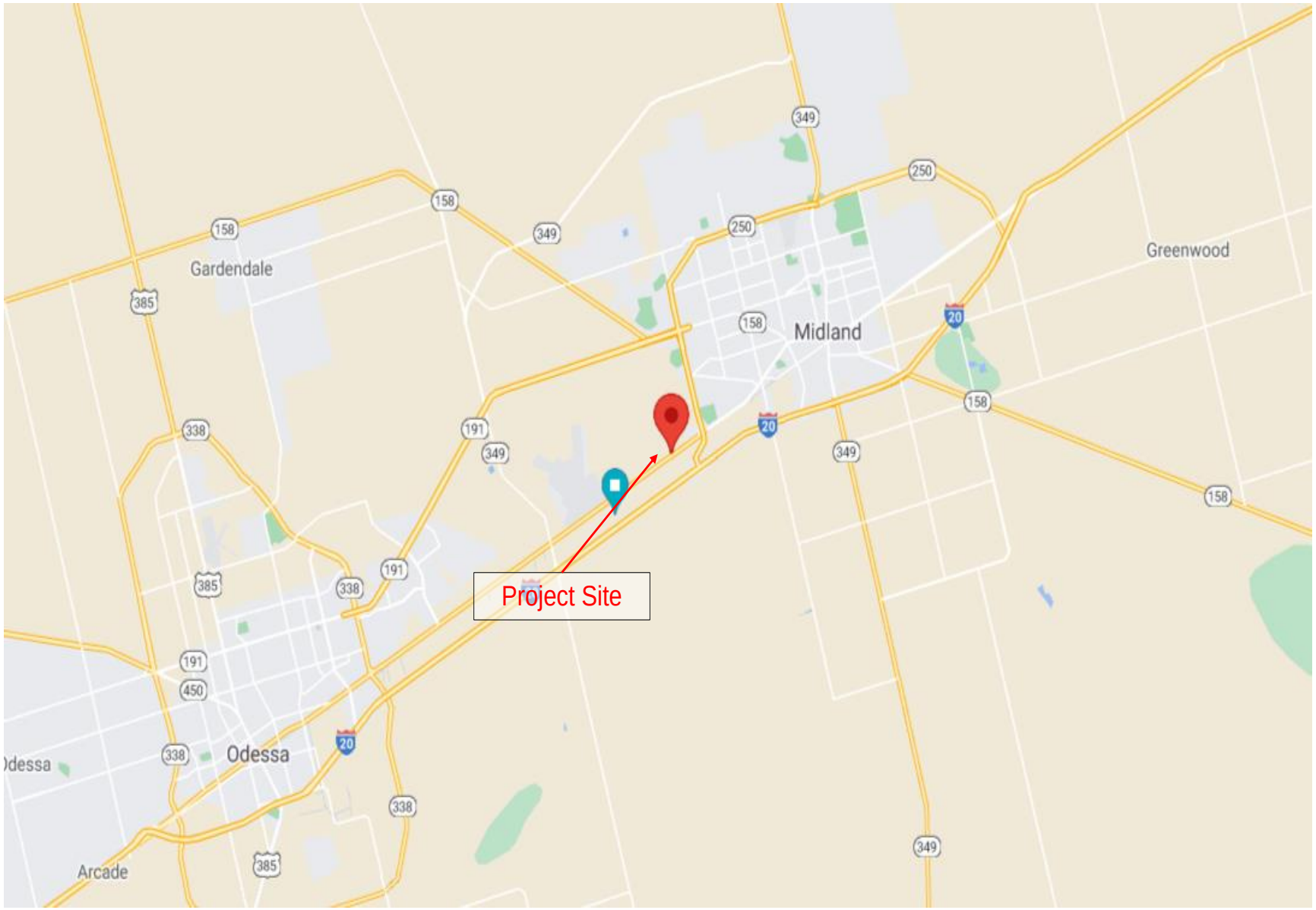



**Figure 1- Project Site Location Map**




**Figure 2 - Borehole Locations Map**

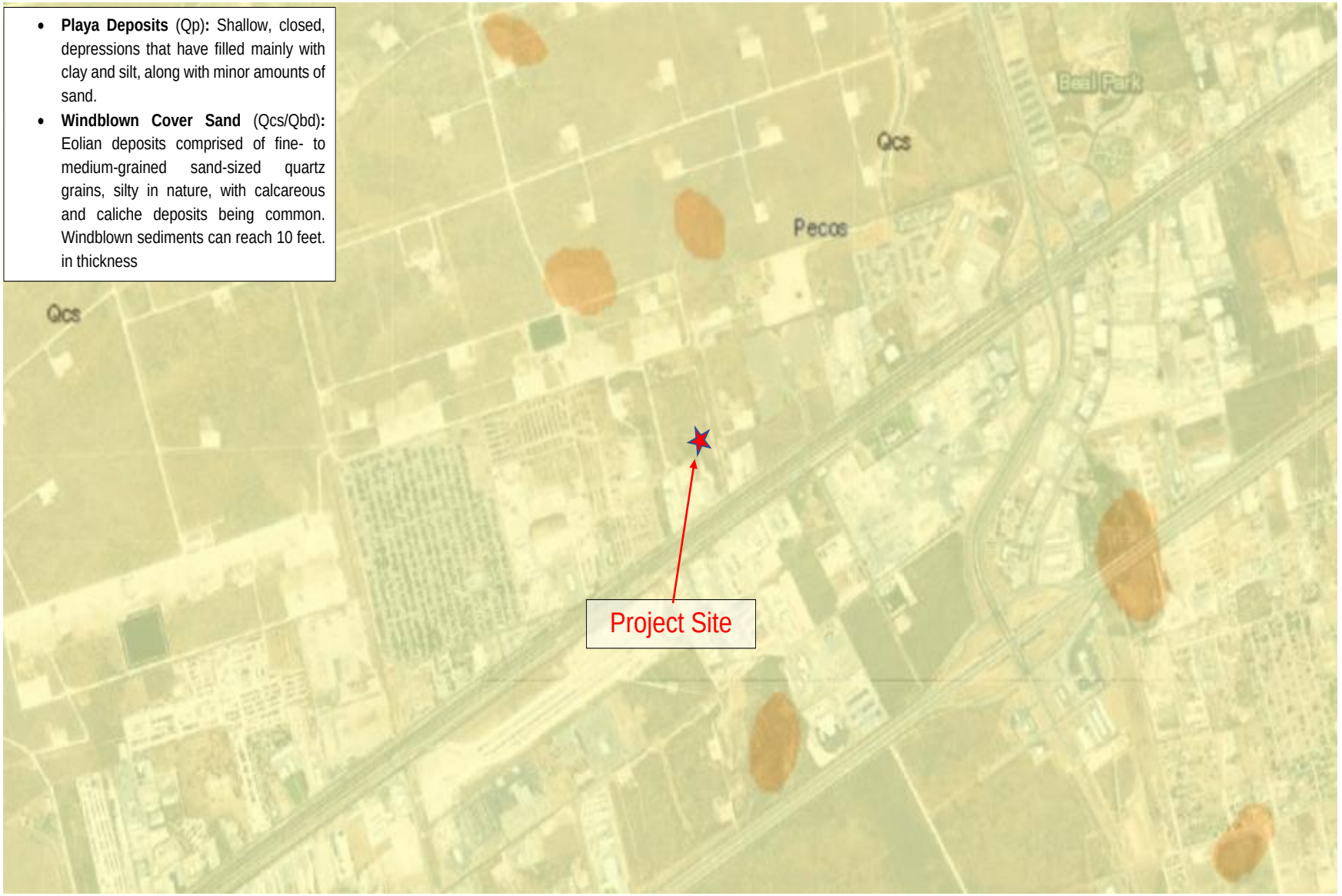
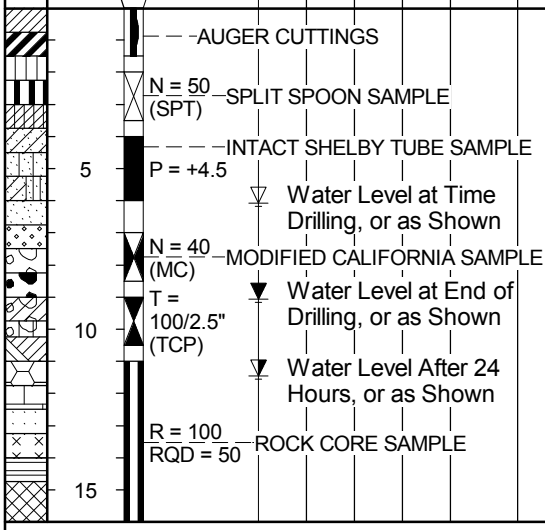



**Figure 3 - Site Vicinity Geologic Map**

# LOG OF BORING KEY




DRILLING METHOD(S):
Continuous Flight Auger/Hollow Stem Auger/Wash Rotary/NX Core

GROUNDWATER INFORMATION:
Groundwater was encountered at 8 ft. during drilling and measured at 9 ft. immediately after drilling

SURFACE ELEVATION: ft.

DESCRIPTION OF STRATUM

**Cohesive Soils - Clay and Silt**

| Modified California (RS) | Standard Split-spoon (SS) | Pocket Penetrometer | Consistency |
|---|---|---|---|
| SPT # blows/ft | SPT # blows/ft | Unconfined Compressive Strength (tsf) | |
| < 3 | < 2 | < 0.25 | Very Soft |
| 3-6 | 2-4 | 0.25-0.5 | Soft |
| 7-12 | 5-8 | 0.5-1.0 | Medium Stiff |
| 13-25 | 9-15 | 1.0-2.0 | Stiff |
| 26-50 | 16-30 | 2.0-4.0 | Very Stiff |
| > 50 | > 30 | > 4.0 | Hard |

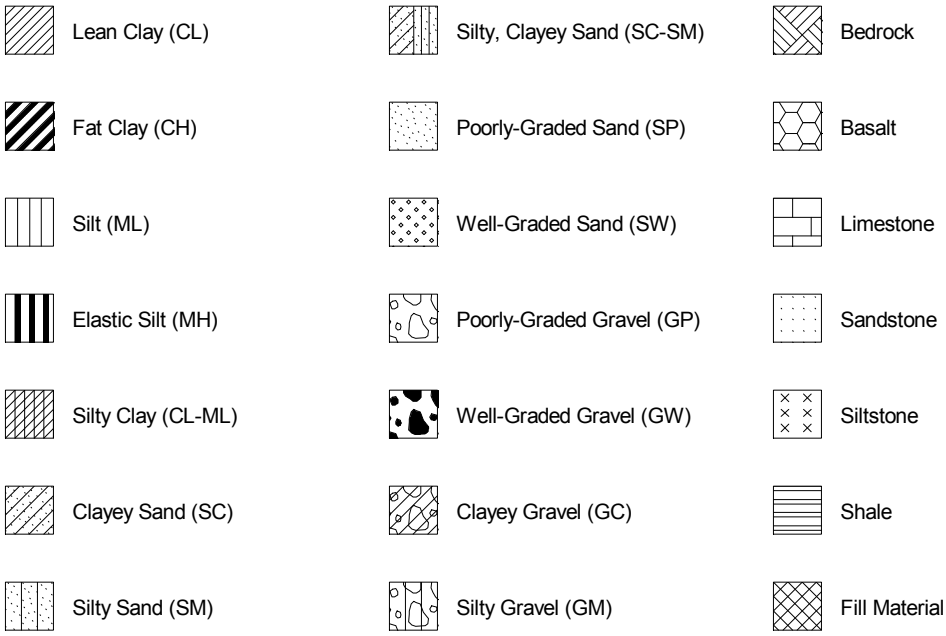
**Cohesionless Soils - Sand and Gravel**

| Modified California (RS) | Standard Split-spoon (SS) | Relative Density |
|---|---|---|
| SPT # blows/ft | SPT # blows/ft | |
| 0-6 | < 4 | Very Loose |
| 7-18 | 4-10 | Loose |
| 19-58 | 11-30 | Medium Dense |
| 59-98 | 31-50 | Dense |
| > 98 | > 50 | Very Dense |

-- TESTING SYMBOL DEFINITIONS --

N - STANDARD PENETRATION TEST RESISTANCE
P - POCKET PENETROMETER RESISTANCE
T - TXDOT CONE PENETRATION RESISTANCE
R - ROCK CORE RECOVERY
RQD - ROCK QUALITY DESIGNATION

## TYPICAL SOIL AND ROCK SYMBOLS (USCS CLASSIFICATION)




## DEGREE OF WEATHERING

1) Unweathered: No evidence of any chemical or mechanical alteration.
2) Slightly weathered: Slight discoloration on surface, slight alteration along discontinuities, less that 10% of the rock volume altered.
3) Moderately weathered: Discoloring evident, surface pitted and altered with alteration penetrating well below rock surfaces, weathering "halos" evident, 10 to 50% of the rock volume altered.
4) Highly weathered: Entire mass discolored, alteration pervading nearly all of the rock with some pockets of slightly weathered rock noticeable, some minerals leached away.
5) Decomposed: Rock reduced to a soil with relicit rock texture, generally molded and crumbled by hand.

## SOIL STRUCTURE

Calcareous..... Containing calcium carbonate
Slickensided..... The presence of planes of weakness having a slick and glossy appearance
Interbedded..... Alternating layers of varying material

# LOG OF BORING B-1



Beyond Engineering and Testing, LLC
3011-B South County Road 1260
Midland, Texas 79706
Telephone: 432.561.5780
www.BeyondET.com

CLIENT: City of Midland
PROJECT: Citizen's Collection Station
LOCATION: Midland, Texas
NUMBER: GT2111061
DATE(S) DRILLED: 11/19/21

DRILLING METHOD(S):
Air Rotary

GROUNDWATER INFORMATION:
Groundwater not encountered during or immediately after drilling

SURFACE ELEVATION:

| DEPTH (FT) | SOIL SYMBOL | SAMPLES | N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: % | MOISTURE CONTENT (%) | ATTERBERG LIMITS LIQUID LIMIT LL | ATTERBERG LIMITS PLASTIC LIMIT PL | ATTERBERG LIMITS PLASTICITY INDEX PI | DRY DENSITY POUNDS/CU.FT | COMPRESSIVE STRENGTH (TONS/SQ. FT) | STRAIN AT FAILURE (%) | CONFINING PRESSURE (POUNDS/SQ IN) | MINUS NO. 200 SIEVE (%) | DESCRIPTION OF STRATUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | Topsoil 1.5 inches |
| | | | N = 16 | 1.4 | | | | | | | | | SILTY SAND (SM), brown, medium dense to very dense, dry, fine to medium grained |
| | | | N = 26 | 1.5 | NP | NP | NP | | | | | 17.1 | |
| 5 | | | N = 38 | | | | | | | | | | |
| | | | N = 50/1.5" | | | | | | | | | | Grading trace Gravel, light brown |
| 10 | | | N = 25 | 6.8 | 39 | 23 | 16 | | | | | 23.2 | CLAYEY SAND (SC), with gravel, light brown, medium dense, dry, fine to medium grained |
| 15 | | | N = 50/6" | | | | | | | | | | SILTY SAND (SM), brown, very dense, dry, fine to medium grained |
| | | | N = 50/5" | | | | | | | | | | |
| | | | | | | | | | | | | | Total Depth = 19 ft. |

N - STANDARD PENETRATION TEST RESISTANCE
P - POCKET PENETROMETER RESISTANCE
T - TXDOT CONE PENETRATION RESISTANCE
R - ROCK CORE RECOVERY
RQD - ROCK QUALITY DESIGNATION

REMARKS:
GPS COORDINATES: Lat. 31.955617, Long. -102.157978

PACKET
11.685
November 14, 2023

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# LOG OF BORING B-2



Beyond Engineering and Testing, LLC
3011-B South County Road 1260
Midland, Texas 79706
Telephone: 432.561.5780
www.BeyondET.com

CLIENT: City of Midland
PROJECT: Citizen's Collection Station
LOCATION: Midland, Texas
NUMBER: GT2111061
DATE(S) DRILLED: 11/19/21

DRILLING METHOD(S):
Air Rotary

GROUNDWATER INFORMATION:
Groundwater not encountered during or immediately after drilling

SURFACE ELEVATION:

| SOIL SYMBOL | DEPTH (FT) | SAMPLES | N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: % | MOISTURE CONTENT (%) | ATTERBERG LIMITS LIQUID LIMIT LL | ATTERBERG LIMITS PLASTIC LIMIT PL | ATTERBERG LIMITS PLASTICITY INDEX PI | DRY DENSITY POUNDS/CU.FT | COMPRESSIVE STRENGTH (TONS/SQ. FT) | STRAIN AT FAILURE (%) | CONFINING PRESSURE (POUNDS/SQ IN) | MINUS NO. 200 SIEVE (%) | DESCRIPTION OF STRATUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | Topsoil 2 inches |
| | | | N = 6 | | | | | | | | | | SILTY SAND (SM), brown, loose, dry, fine to medium grained |
| | | | N = 9 | 5.3 | 24 | 13 | 11 | | | | | 37.9 | CLAYEY SAND (SC), with gravel, light brown, loose to dense, dry, fine to medium grained |
| | 5 | | N = 10 | 6.4 | | | | | | | | | Grading trace Gravel |
| | | | N = 16 | 11.2 | 38 | 15 | 23 | | | | | 34.4 | |
| | | | N = 50/6" | | | | | | | | | | SILTY SAND (SM), light brown, very dense, dry, fine to medium grained<br>Grading with Gravel |
| | 10 | | | | | | | | | | | | |
| | | | N = 50/2" | | | | | | | | | | |
| | 15 | | | | | | | | | | | | |
| | | | N = 50/1.5" | | | | | | | | | | |
| | | | | | | | | | | | | | Total Depth = 19 ft. |

DESCRIPTION OF STRATUM

N - STANDARD PENETRATION TEST RESISTANCE
P - POCKET PENETROMETER RESISTANCE
T - TXDOT CONE PENETRATION RESISTANCE
R - ROCK CORE RECOVERY
RQD - ROCK QUALITY DESIGNATION

REMARKS:
GPS COORDINATES: Lat. 31.955419, Long. -102.158930

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November 14, 2023

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# LOG OF BORING B-3



Beyond Engineering and Testing, LLC
3011-B South County Road 1260
Midland, Texas 79706
Telephone: 432.561.5780
www.BeyondET.com

CLIENT: City of Midland
PROJECT: Citizen's Collection Station
LOCATION: Midland, Texas
NUMBER: GT2111061
DATE(S) DRILLED: 11/19/21

DRILLING METHOD(S):
Air Rotary

GROUNDWATER INFORMATION:
Groundwater not encountered during or immediately after drilling

SURFACE ELEVATION:

| SOIL SYMBOL | DEPTH (FT) | SAMPLES | N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: % | MOISTURE CONTENT (%) | ATTERBERG LIMITS LIQUID LIMIT LL | ATTERBERG LIMITS PLASTIC LIMIT PL | ATTERBERG LIMITS PLASTICITY INDEX PI | DRY DENSITY POUNDS/CU.FT | COMPRESSIVE STRENGTH (TONS/SQ. FT) | STRAIN AT FAILURE (%) | CONFINING PRESSURE (POUNDS/SQ IN) | MINUS NO. 200 SIEVE (%) | DESCRIPTION OF STRATUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | Topsoil 1.5 inches |
| | | | N = 14 | 4.7 | 22 | 13 | 9 | | | | | 29.5 | CLAYEY SAND (SC), with gravel, light brown, medium dense, dry, fine to medium grained |
| | | | N = 18 | | | | | | | | | | |
| | 5 | | N = 20 | 4.8 | 20 | 12 | 8 | | | | | 36.7 | |
| | | | N = 12 | | | | | | | | | | Grading trace Gravel, light brown |
| | | | N = 77 | 4.8 | | | | | | | | | SILTY SAND (SM), brown, very dense, dry, fine to medium grained |
| | 10 | | | | | | | | | | | | |
| | | | N = 50/3" | | | | | | | | | | |
| | 15 | | | | | | | | | | | | |
| | | | N = 50/2" | | | | | | | | | | |
| | | | | | | | | | | | | | Total Depth = 19 ft. |

N - STANDARD PENETRATION TEST RESISTANCE
P - POCKET PENETROMETER RESISTANCE
T - TXDOT CONE PENETRATION RESISTANCE
R - ROCK CORE RECOVERY
RQD - ROCK QUALITY DESIGNATION

REMARKS:
GPS COORDINATES: Lat. 31.955276, Long. -102.159771

PACKET



November 14, 2023

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# SUMMARY OF LABORATORY RESULTS

Beyond Engineering and Testing, LLC
3011-B South County Road 1260
Midland, Texas 79706
Telephone: 432.561.5780
www.BeyondET.com

CLIENT: City of Midland
PROJECT: Citizen's Collection Station
LOCATION: Midland, Texas
NUMBER: GT2111061

| Borehole | Depth (ft) | USCS | Water Content (%) | Dry Unit Weight (pcf) | < No. 200 | LL | PL | PI | Compressive Strength (tsf) | Strain at Failure (%) | Confining Pressure (psi) | Chlorides (%/weight) | Sulfates (%/weight) | pH | Minimum Resistivity (ohm-cm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-1 | 0.0 | | 1 | | | | | | | | | 0.0005 | 0.0005 | | |
| B-1 | 2.0 | SM | 2 | | 17 | NP | NP | NP | | | | | | | |
| B-1 | 8.5 | SC | 7 | | 23 | 39 | 23 | 16 | | | | | | | |
| B-2 | 2.0 | SC | 5 | | 38 | 24 | 13 | 11 | | | | | | | |
| B-2 | 4.0 | | 6 | | | | | | | | | | | | |
| B-2 | 6.0 | SC | 11 | | 34 | 38 | 15 | 23 | | | | | | | |
| B-3 | 0.0 | SC | 5 | | 30 | 22 | 13 | 9 | | | | | | | |
| B-3 | 4.0 | SC | 5 | | 37 | 20 | 12 | 8 | | | | | | | |
| B-3 | 8.5 | | 5 | | | | | | | | | | | | |

PACKET 11.688 November 14, 2023

**ND** Not Detected; **D** Diluted;
*Denotes Total Unit Weight

# Client Sample Results

Client: Beyond Engineering & Testing, LLC
Project/Site: Citizen's Collection Center

Job ID: 880-9035-1

**Client Sample ID: B-1**
**Date Collected: 12/07/21 00:00**
**Date Received: 12/07/21 13:42**
**Sample Depth: 0 - 1.5**

**Lab Sample ID: 880-9035-1**
**Matrix: Solid**

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <4.95 | U | 4.95 | | mg/Kg | | | 12/09/21 14:43 | 1 |
| Sulfate | <4.95 | U | 4.95 | | mg/Kg | | | 12/09/21 14:43 | 1 |

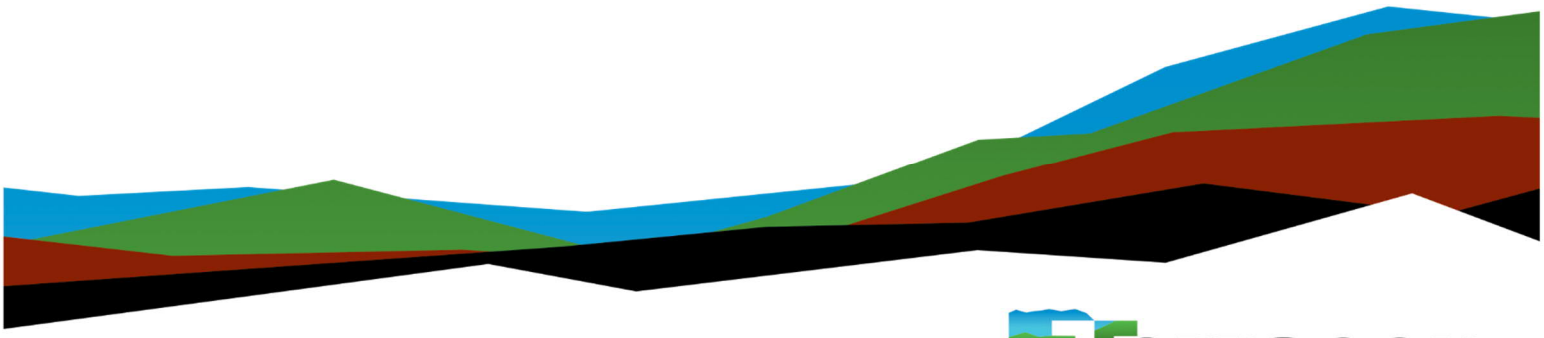
# Midland North CCS

## Geotechnical Engineering Report

July 14, 2023 | Terracon Project No. A4235100

Prepared for:

Parkhill
4222 85th St
Lubbock, TX 79423



Terracon
Explore with us

PACKET 11.690 November 14, 2023

Nationwide
Terracon.com

- Facilities
- Environmental
- Geotechnical
- Materials

10400 State Hwy 191
Midland, TX 79707
P (432) 684-9600
Terracon.com

July 14, 2023

Parkhill
4222 85th St
Lubbock, TX 79423

Attn: Mr. R. Ashley Coco - Senior Architectural Project Manager
E: acoco@Parkhill.com

Re: Geotechnical Engineering Report
Midland North CCS
2.5 Miles N-NW of Intersection of US Highway 349 and Occidental Parkway
Midland County, TX
Terracon Project No. A4235100

Dear Mr. Coco:

We have completed Geotechnical Engineering services for the above referenced project in general accordance with Terracon Email Quote dated May 25, 2023, and a Consulting Services Agreement between Parkhill and Terracon dated May 31, 2023. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design as well as construction of foundations, and pavements for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,

Terracon




FOR

Kiran P. Acharya, Ph.D., P.E.
Project Engineer

Jitendra “JT” Thakur, Ph.D., P.E.
Geotechnical Department Manager

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Note: This report was originally delivered in a web-based format. Blue Bold text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the Terracon logo will bring you back to this page. For more interactive features, please view your project online at client.terracon.com.

Refer to each individual Attachment for a listing of contents.

# Report Summary

| Topic [1] | Overview Statement [2] |
|---|---|
| Project Description | This project is to construct a small single-story pre-engineered metal building and a paved “Citizens Collection Station (CCS)” area for city of Midland Solid Waste department. |
| Geotechnical Characterization | Clayey gravel with sand was encountered within the upper about 2 feet of existing grades, underlain by very dense, cemented, calcareous materials, locally called “caliches”. We expect on-site subsurface materials have low potential for shrink/swell with fluctuations in moisture content. The on-site subsurface materials can generally be used as structural fill provided that the caliche materials are crushed into sizes less than 4 inches in maximum dimensions, and they meet structural fill requirements. Groundwater was not encountered during our field exploration. |
| Earthwork | Heavy duty equipment will generally be suitable for earthwork, and utility trench excavations on the project site. Controlled blasting could be required for utility trench excavations in confined areas. |
| Shallow Foundations | Shallow foundations such as spread and/or continuous strip footings can generally be used to support the building. Net allowable bearing pressure of 3,000 pounds per square foot (psf) be used for design of shallow foundations. |
| Pavements | Asphalt Pavement:<br>1.5” asphalt concrete over 8” of aggregate base course for Class I<br>2” asphalt concrete over 8” of aggregate base course for Class II<br>2.5” asphalt concrete over 10” of aggregate base course for Class III<br>Concrete Pavement:<br>5” PCC over 4” aggregate base for Category A<br>6” PCC over 4” aggregate base for Category D<br>7” PCC over 4” aggregate base for Category E |
| General Comments | This section contains important information about the limitations of this geotechnical engineering report. |

1. If the reader is reviewing this report as a pdf, the topics above can be used to access the appropriate section of the report by simply clicking on the topic itself.
2. This summary is for convenience only. It should be used in conjunction with the entire report for design purposes.

# Introduction

This report presents the results of our subsurface exploration and Geotechnical Engineering services performed for the Midland North CCS to be located about 2.5 Miles N-NW of Intersection of US Highway 349 and Occidental Parkway in Midland County, TX. The purpose of these services was to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Groundwater conditions
- Seismic site classification per IBC
- Site preparation and earthwork
- Foundation design and construction
- Pavement design and construction

The geotechnical engineering scope of services for this project included the advancement of soil-test borings, laboratory testing, engineering analysis, and preparation of this report.

Drawings showing the site and boring locations are shown on the Site Location and Exploration Plan, respectively. The results of laboratory testing performed on soil samples obtained from the site during our field exploration are included on the boring logs in the Exploration Results section.

# Project Description

Our initial understanding of the project was provided in our proposal and was discussed during project planning. A period of collaboration has transpired since the project was initiated, and our final understanding of the project conditions is as follows:

| Item | Description |
|---|---|
| Information Provided | A project site location and a construction layout were received from Mr. R. Ashley Coco of Parkhill via an email on May 25, 2023. |
| Proposed Structures | This project includes construction of a small pre-engineered metal building on the southern end, and a paved area for trash collection at the northern portion of the site. The paved area will be a CCS for city of Midland Solid Waste department. |

| Item | Description |
|---|---|
| Foundation Types | We expect the building will be supported on shallow foundations, such as spread and/or continuous strip footings. |
| Finished Floor Elevation | Finished floor elevation is assumed to be within 2 feet of existing grades. |
| Maximum Loads (Assumed) | ■ Column loads: 50 kips<br>■ Wall loads: 1.5 kips per linear foot (klf)<br>■ Slab loads: 125 psf |
| Pavements (Assumed) | We understand that CCS area will be paved. We assume that the traffic classification for design of asphalt pavement will consist of:<br>■ Class I: Parking stalls for autos and pickup trucks [Equivalent Single Axle Loads (ESALs) = 7,000]<br>■ Class II: Traffic consisting of home delivery trucks, trash pickup (ESALs = 27,000)<br>■ Class III: Delivery lanes with up to ten 3-axle trucks per day (ESALs = 107,000)<br>The anticipated ACI traffic categories and daily truck traffic for design of concrete pavement are assumed to consist of:<br>■ Category A: Car and auto parking areas and access lanes, 10 trucks per day<br>■ Category D: Heavy-duty trucks, 1 truck per day<br>■ Category E: Fire or trash truck lanes, 1 truck per day<br>The pavement design period is 20 years. |

Terracon should be notified if any of the above information is inconsistent with the planned construction, especially the grading limits and structural loads, as modifications to our recommendations may be necessary.

## Site Conditions

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

| Item | Description |
|---|---|
| Parcel Information | Midland North CCS site is located about 2.5 Miles N-NW of Intersection of US Highway 349 and Occidental Parkway in Midland County, TX. The coordinates of approximate center of the site are 32.1038°N, 102.0955°W. See Site Location |
| Existing Improvements | None |
| Current Ground Cover | Exposed soils, grasses, and mesquites |
| Existing Topography | Relatively flat |

We also collected photographs at the time of our field exploration program. Representative photos are provided in our Photography Log.

## Geotechnical Characterization

We have developed a general characterization of the subsurface conditions based upon our review of the subsurface exploration, laboratory data, geologic setting, and our understanding of the project. This characterization, termed GeoModel, forms the basis of our geotechnical calculations and evaluation of the site. Conditions observed at each exploration point are indicated on the individual log. The individual log can be found in the Exploration Results and the GeoModel can be found in the Figures attachment of this report.

As part of our analyses, we identified the following model layers within the subsurface profile. For a more detailed view of the model layer depths at the boring location, please refer to the GeoModel.

| Model Layer | Layer Name | General Description |
|---|---|---|
| 1 | Sand and Gravel | Clayey gravel with sand; very dense |
| 2 | Caliche | Silty clayey sand with gravel; very dense |

Excavation difficulties are generally anticipated within Model Layer 2.

Caliche is a calcium-carbonate-cemented material. Caliche has many resemblances to rock. It is difficult to excavate caliche materials.

The borings were advanced in the dry using air rotary drilling technique that allows short-term groundwater observation to be made while drilling. Groundwater seepage was not

encountered or observed in either of the borings within the maximum drilling depths of about 24 feet bgs at the time of our field exploration. Groundwater is not expected to affect shallow foundation construction at this site.

Groundwater conditions may be different at the time of construction. Groundwater conditions may change because of seasonal variations in rainfall, runoff, and other conditions not apparent at the time of drilling. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project. Long-term groundwater monitoring was outside the scope of services for this project.

## Seismic Site Class

The seismic design requirements for buildings and other structures are based on Seismic Design Category. Site Classification is required to determine the Seismic Design Category for a structure. The Site Classification is based on the upper 100 feet of the site profile defined by a weighted average value of either shear wave velocity, standard penetration resistance, or undrained shear strength in accordance with Section 20.4 of ASCE 7 and the International Building Code (IBC). Based on the soil/rock properties observed at the site and as described on the exploration log and results, our professional opinion is for that a Seismic Site Classification of C be considered for the project. Subsurface exploration at this site was extended to a maximum depth of about 24 feet bgs. The site properties below the boring depth to 100 feet were estimated based on our experience and knowledge of geologic conditions of the general area. Additional deeper boring or geophysical testing may be performed to confirm the conditions below the current boring depth.

## Geotechnical Overview

The area to the west of the project site is previously developed. Although no deleterious materials, such as construction debris, or organics were encountered during our field exploration or observed in the collected samples, we caution that potential existing fill that contains deleterious materials could exist on the project site in areas away from our borings. If deleterious materials are detected during construction, Terracon should be notified immediately to provide consultation. In general, deleterious materials can be replaced with structural fill.

The site appears suitable for the proposed development based upon geotechnical conditions encountered in the test borings, provided that the recommendations provided in this report are implemented in the design and construction phases of this project.

We expect on-site subsurface materials have low potential for shrink/swell with fluctuations in moisture content. Moisture-induced potential vertical movements are estimated to be less than 1 inch. The on-site soils are generally suitable for use as structural fill. Based on the conditions encountered and estimated load-settlement relationships, the proposed building can be supported on shallow spread/continuous strip footings.

According to the 2021 International Structures Code (Section 1613.3.2), IBC seismic site classification for this site is determined to be C. The recommendations contained in this report are based upon the results of field and laboratory testing (presented in the Exploration Results), engineering analyses, and our current understanding of the proposed project. The General Comments section provides an understanding of the report limitations.

# Earthwork

Earthwork will include clearing and grubbing, excavations, and fill placement. The following sections provide recommendations for use in the preparation of specifications for the work. Recommendations include critical quality criteria as necessary to render the site in the state considered in our geotechnical engineering evaluation for foundations.

## Site Preparation

Prior to placing fill, striping of existing topsoil, vegetations, and root mats should be performed in the proposed development area. The soil materials which contain less than 5 percent organics can be reused as structural fill provided the material is moisture conditioned and properly compacted.

## Subgrade Preparation

We suggest after site preparation operation is conducted; the entire site should be proofrolled. The proofrolling should be conducted with an adequately loaded vehicle such as a fully-loaded tandem-axle dump truck. The proofrolling should be performed under the observation of the Geotechnical Engineer or representative. Areas excessively deflecting under the proofrolling should be delineated and subsequently addressed by the Geotechnical Engineer. Excessively wet or dry material should either be removed, or moisture conditioned and recompacted as per Fill Placement and Compaction Requirements section.

All exposed areas which will receive fill, once properly cleared and benched where necessary, should be scarified to a minimum depth of 10 inches, and compacted per the

compaction requirements in this report. Compacted structural fill soils should then be placed to the proposed design grade and the moisture content and compaction of subgrade soils should be maintained until foundation or pavement construction.

## Excavation

Based on the conditions encountered, we believe heavy-duty equipment, such as a hoe ram, a heavy dozer equipped with a ripper, a rock saw or jack hammer or with rock trenching equipment, will generally be required for earthwork and utility-trench excavations. Controlled blasting (trench excavations) could be required for utility trench excavations in confined areas. The bottom of excavations should be thoroughly cleaned of loose soils and disturbed materials prior to backfill placement and/or construction.

The descriptions provided below are a guide to conditions generally encountered in the region of the project site. Required excavation techniques will vary based on weathering of the materials to be excavated, the fracturing, jointing and overall stratigraphy of the feature. Actual field conditions usually display a gradual weathering progression with poorly defined and uneven boundaries between layers of different materials. We recommend that the following definitions for rock in earthwork excavation be included in bid documents:

| Excavation Type | Definition |
|---|---|
| Mass Excavation | Any material occupying an original volume of more than 1 cubic yard which cannot be excavated with a single-toothed ripper drawn by a crawler tractor having a minimum draw bar pull rating of not less than 80,000 pounds usable pull (Caterpillar D-8 or larger). |
| Trench Excavation | Any material occupying an original volume of more than 1/2 cubic yard which cannot be excavated with a backhoe having a bucket curling rate of not less than 40,000 pounds, using a rock bucket and rock teeth (a John Deere 790 or larger). |

## Fill Material Types

Fill required to achieve design grade should be classified as structural fill and general fill. Structural fill is material used below, or within 10 feet of structures, pavements, or constructed slopes. General fill is material used to achieve grade outside of these areas.

Reuse of On-Site Soil: Excavated on-site soil may be re-used as fill. Material property requirements for on-site soil for use as general fill and structural fill are noted in the table below:

| Property | General Fill | Structural Fill |
|---|---|---|
| Composition | Free of deleterious material | Free of deleterious material |
| Maximum particle size | 6 inches | 4 inches |
| Fines content | Not limited | 10% to 50% Passing No. 200 sieve |
| Plasticity | Not limited | Maximum liquid limit of 35 and maximum plasticity index of 15 |
| GeoModel Layer Expected to be Suitable[1,2] | 1,2 | 1,2 |

1. Based on subsurface exploration. Actual material suitability should be determined in the field at time of construction.
2. Caliche materials should be crushed into sizes less than 4 inches in maximum dimensions and should meet structural fill requirements before they can be used as structural fill.

Imported Fill Materials: Imported fill materials should meet the following material property requirements. Regardless of its source, compacted fill should consist of approved materials that are free of organic matter and debris. Frozen material should not be used, and fill should not be placed on a frozen subgrade.

| Soil Type [1] | USCS Classification | Acceptable Parameters (for Structural Fill) |
|---|---|---|
| Low Plasticity Cohesive | CL, CL-ML | Liquid Limit less than 35<br>Plasticity index less than 15<br>25% to 50% retained on No. 200 sieve |
| Granular | GW, GP, GM, GC, SW, SP, SM, SC | 10% to 50% passing No. 200 sieve |

1. Structural and general fill should consist of approved materials free of organic matter and debris. A sample of each material type should be submitted to the Geotechnical Engineer for evaluation prior to use on this site.

## Fill Placement and Compaction Requirements

Structural and general fill should meet the following compaction requirements.

| Item | Structural Fill | General Fill |
|---|---|---|
| Maximum Lift Thickness | 8 inches or less in loose thickness when heavy, self-propelled compaction equipment is used<br>4 inches in loose thickness when hand-guided equipment (i.e., jumping jack or plate compactor) is used | Same as structural fill |
| Minimum Compaction Requirements [1,2] | At least 95% of the material's maximum dry density in all fill areas. | Same as structural fill |
| Water Content Range [1] | -2% to +2% of optimum moisture content | As required to achieve min. compaction requirements |

1. Maximum density and optimum water content as determined by the standard Proctor test (ASTM D 698).
2. If the granular material is a coarse sand or gravel, or of a uniform size, or has a low fines content, compaction comparison to relative density may be more appropriate. In this case, granular materials should be compacted to at least 70% relative density (ASTM D 4253 and D 4254).

## Utility Trench Backfill

Any soft or unsuitable materials encountered at the bottom of utility trench excavations should be removed and replaced with structural fill or bedding material in accordance with public works specifications for the utility be supported. This recommendation is particularly applicable to utility work requiring grade control and/or in areas where subsequent grade raising could cause settlement in the subgrade supporting the utility. Trench excavation should not be conducted below a downward 1:1 projection from existing foundations without engineering review of shoring requirements and geotechnical observation during construction.

Trench backfills should be mechanically placed and compacted as discussed earlier in this report. Compaction of initial lifts should be accomplished with hand-operated tampers or other lightweight compactors. Where trenches are placed beneath slabs or footings, the backfill should satisfy the gradation and plasticity index requirements of engineered fill discussed in this report. Flooding or jetting for placement and compaction of backfill is not recommended.

## Grading and Drainage

Positive drainage should be provided during construction and maintained throughout the life of the development. Infiltration of water into utility trenches or foundation excavations should be prevented during construction. Water retained next to the foundation areas can result in soil movements greater than those discussed in this report. Greater movements can result in unacceptable differential foundation movements. The roof should have gutters/drains with downspouts that discharge onto splash blocks at a distance of at least 10 feet from the building.

In areas where sidewalks or paving do not immediately adjoin structures, we recommend that protective slopes be provided with a minimum grade of approximately 5 percent for at least 10 feet from foundation areas. After foundations construction, final grades should be verified to document effective drainage has been achieved. Grades around the structures should also be periodically inspected and adjusted as necessary as part of the structures' maintenance program. Where paving or flatwork abuts the structure, a maintenance program should be established to effectively seal and maintain joints and prevent surface water infiltration.

## Earthwork Construction Considerations

Shallow excavations for the proposed structures are anticipated to be accomplished with heavy duty construction equipment. Upon completion of earthwork, care should be taken to maintain the subgrade water content prior to construction foundations. Construction traffic over the completed subgrades should be avoided. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. Water collecting over or adjacent to construction areas should be removed. If the subgrade freezes, desiccates, saturates, or is disturbed, the affected material should be removed, or the materials should be scarified, moisture conditioned, and recompacted prior to foundation construction.

As a minimum, excavations should be performed in accordance with OSHA 29 CFR, Part 1926, Subpart P, "Excavations" and its appendices, and in accordance with any applicable local and/or state regulations.

Construction site safety is the sole responsibility of the contractor who controls the means, methods, and sequencing of construction operations. Under no circumstances shall the information provided herein be interpreted to mean Terracon is assuming responsibility for construction site safety or the contractor's activities; such responsibility shall neither be implied nor inferred.

Excavations or other activities resulting in ground disturbance have the potential to affect adjoining properties and structures. Our scope of services does not include review of available final grading information or consider potential temporary grading performed

by the contractor for potential effects such as ground movement beyond the project limits. A preconstruction/precondition survey should be conducted to document nearby property/infrastructure prior to any site development activity. Excavation or ground disturbance activities adjacent or near property lines should be monitored or instrumented for potential ground movements that could negatively affect adjoining property and/or structures.

### Construction Observation and Testing

The earthwork efforts should be monitored under the direction of the Geotechnical Engineer or representative. Monitoring should include documentation of adequate removal of vegetation and topsoil, proof-rolling and mitigation of areas delineated by the proof-roll to require mitigation.

Each lift of compacted fill should be tested, evaluated, and reworked as necessary until approved by the Geotechnical Engineer prior to placement of additional lifts. Each lift of fill should be tested for density and water content at a frequency of at least one test for every 2,500 square feet of compacted fill in the proposed structure areas, and at least one test for every 5,000 square feet of compacted fill in the proposed pavement construction area. One density and water content test should be conducted for every 50 linear feet of compacted utility trench backfill.

In areas of foundation excavations, the bearing subgrade should be evaluated under the direction of the Geotechnical Engineer or representative. In the event that unanticipated conditions are encountered, the Geotechnical Engineer should prescribe mitigation options.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer's evaluation of subsurface conditions, including assessing variations and associated design changes.

## Shallow Foundations

If the site has been prepared in accordance with the requirements noted in Earthwork, the following design parameters are applicable for shallow foundations.

## Design Parameters – Compressive Loads

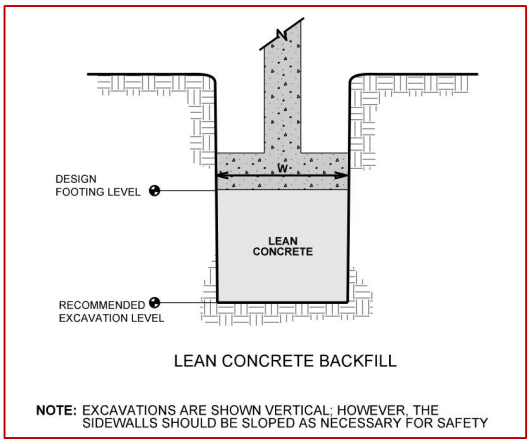
| Item | Description |
|---|---|
| Maximum Net Allowable Bearing Pressure [1, 2] | 3,000 psf (footings) |
| Required Bearing Stratum [3] | GeoModel Layer 1 or 2 or properly compacted structural fill extending to undisturbed native soils) |
| Minimum Foundation Dimensions | 30 inches for spread footings<br>18 inches for continuous strip footings |
| Ultimate Passive Resistance[4] | 360 pcf |
| Sliding Resistance [5] | 0.35 |
| Minimum Embedment below Finished Grade [6] | 24 inches |
| Estimated Total Settlement from Structural Loads [2] | Less than 1 inch |
| Estimated Differential Settlement [2, 7] | Less than 1/2 inch |

1. The maximum net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. Values assume that exterior grades are no steeper than 20% within 10 feet of structure.
2. Values provided are for the maximum loads noted in Project Description. Additional geotechnical consultation will be necessary if higher loads are anticipated.
3. Unsuitable or soft soils should be over-excavated and replaced per the recommendations presented in Earthwork.
4. Use of passive earth pressures require the sides of the excavation for the spread footing foundation to be nearly vertical and the concrete placed neat against these vertical faces or that the footing forms be removed, and compacted structural fill be placed against the vertical footing face. Assumes no hydrostatic pressure.
5. Can be used to compute sliding resistance where foundations are placed on suitable soil/materials. Frictional resistance for granular materials is dependent on the bearing pressure which may vary due to load combinations. For fine-grained materials, lateral resistance using cohesion should not exceed ½ the dead load.
6. Embedment necessary to minimize the effects of frost and/or seasonal water content variations. For sloping ground, maintain depth below the lowest adjacent exterior grade within 5 horizontal feet of the structure.
7. Differential settlements are noted for equivalent-loaded foundations and bearing elevation as measured over a span of 50 feet.

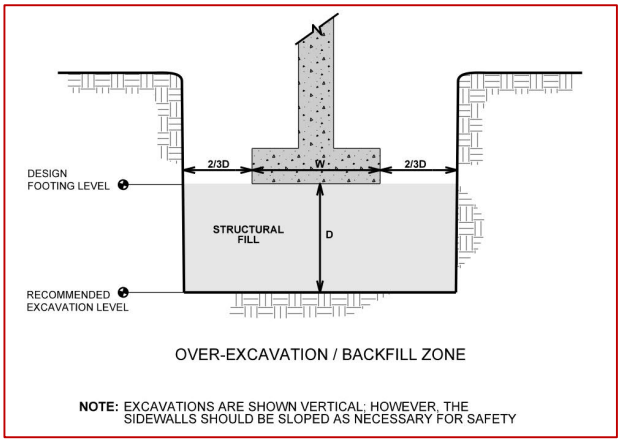
## Foundation Construction Considerations

As noted in Earthwork, the footing excavations should be evaluated under the observation of the Geotechnical Engineer. The base of all foundation excavations should be free of water and loose soil, prior to placing concrete. Concrete should be placed soon after excavating to reduce bearing soil disturbance. Care should be taken to prevent wetting or drying of the bearing materials during construction. Excessively wet or dry material or any loose/disturbed material in the bottom of the footing excavations should be removed/reconditioned before foundation concrete is placed.

If unsuitable bearing soils are observed at the base of the planned footing excavation, the excavation should be extended deeper to suitable soils, and the footings could bear directly on these soils at the lower level or on lean concrete backfill placed in the excavations. The lean concrete replacement zone is illustrated on the sketch below.




Alternatively, over-excavation for structural fill placement below footings should be conducted as shown below. The over-excavation should be backfilled up to the footing base elevation, with suitable fill placed, as recommended in the Earthwork section.



# Floor Slabs

## Floor Slab Design Parameters

Design parameters for floor slabs assume the requirements for Earthwork have been followed. Specific attention should be given to positive drainage away from the structure and positive drainage of the aggregate base beneath the floor slab.

| Item | Description |
|---|---|
| Floor Slab Support[1] | At least 12 inches of properly compacted native soils or properly compacted caliche materials (sizes less than 4 inches in maximum dimensions and meet structural fill requirement) or properly compacted structural fill as needed to achieve finished pad elevation. |
| Estimated Modulus of Subgrade Reaction[2] | 125 psi/inch for point loading conditions |

1. Floor slabs should be structurally independent of building footings or walls to reduce the possibility of floor slab cracking caused by differential movements between the slab and foundation.
2. Modulus of subgrade reaction is an estimated value based upon our experience with the subgrade condition, the requirements noted in Earthwork, and the floor slab support as noted in this table. It is provided for point loads. For large area loads the modulus of subgrade reaction would be lower.

A conventional slab-on-grade system can be used on the project site; no structural slab is necessary because on-site soils are not expansive soils. The use of a vapor retarder should be considered beneath concrete slabs on grade covered with wood, tile, carpet, or other moisture sensitive or impervious coverings, when the project includes humidity-controlled areas, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder, the slab designer should refer to ACI 302 and/or ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder.

Saw-cut contraction joints should be placed in the slab to help control the location and extent of cracking. For additional recommendations, refer to the ACI Design Manual. Joints or cracks should be sealed with a waterproof, non-extruding compressible compound specifically recommended for heavy duty concrete pavement and wet environments.

Where floor slabs are tied to perimeter walls or turn-down slabs to meet structural or other construction objectives, our experience indicates differential movement between the walls and slabs will likely be observed in adjacent slab expansion joints or floor slab cracks beyond the length of the structural dowels. The Structural Engineer should account for potential differential settlement through use of sufficient control joints, appropriate reinforcing, or other means.

### Floor Slab Construction Considerations

Finished subgrade, within and for at least 5 feet beyond the floor slab, should be protected from traffic, rutting, or other disturbance and maintained in a relatively moist condition until floor slabs are constructed. If the subgrade should become damaged or desiccated prior to construction of floor slabs, the affected material should be removed, and structural fill should be added to replace the resulting excavation. Final conditioning of the finished subgrade should be performed immediately prior to placement of the floor slab support course.

The Geotechnical Engineer or representative should approve the condition of the floor slab subgrades immediately prior to placement of the floor slab support course, reinforcing steel, and concrete. Attention should be paid to high traffic areas that were rutted and disturbed earlier, and to areas where backfilled trenches are located.

## Pavements

### Pavement – Subgrade Preparation

The natural subgrade should be uniformly compacted to the criteria in section Fill Placement and Compaction Requirements of this report. It should then be protected and maintained in a moist condition until the pavement is placed. Pavement subgrades should be graded to prevent ponding and infiltration of excessive moisture on or adjacent to the pavement subgrade surface.

Site grading is generally accomplished early in the construction phase. However, as construction proceeds, the subgrade may be disturbed due to utility excavations, construction traffic, desiccation, or rainfall. Thus, the pavement subgrade may not be suitable for pavement construction and corrective action will be required. The subgrade should be carefully evaluated at the time of pavement construction for signs of disturbance or excessive rutting. If disturbance has occurred, pavement subgrade areas should be reworked, moisture conditioned, and properly compacted to the recommendations provided in this report immediately prior to paving.

## General Pavement Comments

Pavement designs are provided for the traffic conditions and pavement life conditions as noted in Project Description and in the following sections of this report. A critical aspect of pavement performance is site preparation. Pavement designs noted in this section must be applied to the site which has been prepared as recommended in the Earthwork section.

## Pavement Design Parameters

A California Bearing Ratio (CBR) of 4 was used for the subgrade for the asphaltic concrete (AC) pavement designs. A modulus of subgrade reaction of 125 pci was used for the portland cement concrete (PCC) pavement designs. The value was empirically derived based upon our experience with the similar subgrade soils and our expectation of the quality of the subgrade as prescribed by the Site Preparation conditions as outlined in Earthwork. A modulus of rupture of 550 psi was used in design for the concrete (based on correlations with a minimum 28-day compressive strength of 4,000 psi).

## Pavement Section Thicknesses

The following table provides our opinion of minimum thickness for Asphaltic Concrete (AC) sections:

Asphaltic Concrete Design

| Layer | Thickness (inches) | | |
|---|---|---|---|
| | Traffic Class I [1] | Traffic Class II [1] | Traffic Class III [1] |
| AC [2, 3] | 1.5 | 2 | 2.5 |
| Aggregate Base | 8 | 8 | 10 |

1. See Project Description for more specifics regarding traffic assumptions.
2. All materials should meet the Texas Department of Transportation (TXDOT) Standard Specifications for Highway Construction.
   - Asphaltic Surface – Plant mixed, hot laid Type C or D Surface, meeting the master specifications requirements of 2014 TXDOT Standard Specifications Item SS 3224 (2011) and specific criteria for the job mix formula.
   - Asphaltic Base - Crushed limestone base meeting all of the requirements of 2014 TxDOT Item 247, Type A, Grade 1-2.
3. A minimum 1.5-inch surface course should be used on AC pavements.

The following table provides our estimated minimum thickness of Portland Cement Concrete (PCC) pavements.

Portland Cement Concrete Design

| Layer | Thickness (inches) | | |
|---|---|---|---|
| | Traffic Category A [1] | Traffic Category D [1] | Traffic Category E [1] |
| PCC [2] | 5 | 6 | 7 |
| Aggregate Base | 4 | 4 | 4 |

1. See Project Description for more specifics regarding traffic classifications.
2. All materials should meet the Texas Department of Transportation (TXDOT) Standard Specifications for Highway Construction.

Areas for parking of heavy vehicles, concentrated turn areas, and start/stop maneuvers could require thicker pavement sections. Edge restraints (i.e., concrete curbs or aggregate shoulders) should be planned along curves and areas of maneuvering vehicles.

Although not required for structural support, a minimum 4-inch-thick base course layer is recommended to help reduce potential for slab curl, shrinkage cracking, and subgrade pumping through joints. Proper joint spacing will also be required to prevent excessive slab curling and shrinkage cracking. Joints should be sealed to prevent entry of foreign material and doweled where necessary for load transfer. PCC pavement details for joint spacing, joint reinforcement, and joint sealing should be prepared in accordance with ACI 330 and ACI 325.

Where practical, we recommend early-entry cutting of crack-control joints in PCC pavements. Cutting of the concrete in its “green” state typically reduces the potential for micro-cracking of the pavements prior to the crack control joints being formed, compared to cutting the joints after the concrete has fully set. Micro-cracking of pavements may lead to crack formation in locations other than the sawed joints, and/or reduction of fatigue life of the pavement.

Openings in pavements, such as decorative landscaped areas, are sources for water infiltration into surrounding pavement systems. Water can collect in the islands and migrate into the surrounding subgrade soils thereby degrading support of the pavement. Islands with raised concrete curbs, irrigated foliage, and low permeability near-surface soils are particular areas of concern. The civil design for the pavements with these conditions should include features to restrict or collect and discharge excess water from the islands. Examples of features are edge drains connected to the stormwater collection system, longitudinal subdrains, or other suitable outlets and impermeable barriers

preventing lateral migration of water such as a cutoff wall installed to a depth below the pavement structure.

## Pavement Drainage

Pavements should be sloped to provide rapid drainage of surface water. Water allowed to pond on or adjacent to the pavements could saturate the subgrade and contribute to premature pavement deterioration. In addition, the pavement subgrade should be graded to provide positive drainage within the granular base section. Appropriate sub-drainage or connection to a suitable daylight outlet should be provided to remove water from the granular subbase.

## Pavement Maintenance

The pavement sections represent minimum recommended thicknesses and, as such, periodic upkeep should be anticipated. Preventive maintenance should be planned and provided for through an on-going pavement management program. Maintenance activities are intended to slow the rate of pavement deterioration and to preserve the pavement investment. Pavement care consists of both localized (e.g., crack, and joint sealing and patching) and global maintenance (e.g., surface sealing). Additional engineering consultation is recommended to determine the type and extent of a cost-effective program. Even with periodic maintenance, some movements and related cracking may still occur, and repairs may be required.

Pavement performance is affected by its surroundings. In addition to providing preventive maintenance, the civil engineer should consider the following recommendations in the design and layout of pavements:

- Final grade adjacent to paved areas should slope down from the edges at a minimum 2%.
- Subgrade and pavement surfaces should have a minimum 2% slope to promote proper surface drainage.
- Install pavement drainage systems surrounding areas anticipated for frequent wetting.
- Install joint sealant and seal cracks immediately.
- Seal all landscaped areas in or adjacent to pavements to reduce moisture migration to subgrade soils.
- Place compacted, low permeability backfill against the exterior side of curb and gutter.
- Place curb, gutter and/or sidewalk directly on clay subgrade soils rather than on unbound granular base course materials.

# General Comments

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials, or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly affect excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety and cost estimating including excavation support and dewatering requirements/design are the responsibility of others.

Construction and site development have the potential to affect adjacent properties. Such impacts can include damages due to vibration, modification of groundwater/surface water flow during construction, foundation movement due to undermining or subsidence from excavation, as well as noise or air quality concerns. Evaluation of these items on nearby properties are commonly associated with contractor means and methods and are not addressed in this report. The owner and contractor should consider a preconstruction/precondition survey of surrounding development. If changes in the

nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

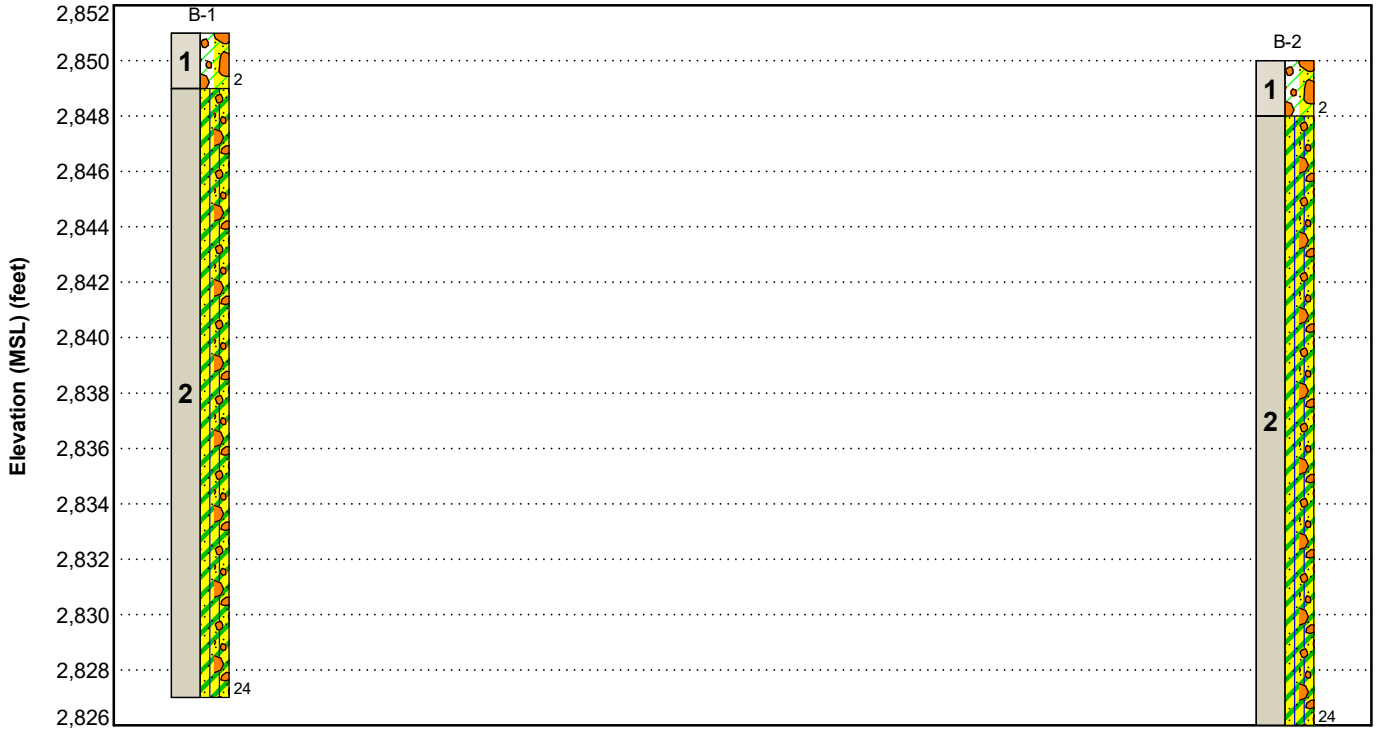
# Figures

Contents:

GeoModel

Terracon
10400 State Highway 191
Midland, TX

# GeoModel




This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

| Model Layer | Layer Name | General Description |
|---|---|---|
| 1 | **Sand and Gravel** | Clayey gravel with sand; very dense |
| 2 | **Caliche** | Silty clayey sand with gravel; very dense |

## LEGEND

Clayey Gravel with Sand

Silty Clayey Sand with Gravel

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project. Numbers adjacent to soil column indicate depth below ground surface.

# Attachments

# Exploration and Testing Procedures

## Field Exploration

| Number of Borings | Boring Depth (feet) [1, 2] | Location |
|---|---|---|
| B-1 | 24 | Building Footprint Area |
| B-2 | 24 | Citizens Collection Station (CCS) Area |

1. Below ground surface
2. Borings were terminated at depths of about 1 foot shorter than the planned depths due to very dense caliche materials.

Boring Layout and Elevations: Terracon personnel provided the boring layout. Elevations were estimated at the boring locations using Google Earth Pro. We used handheld GPS equipment to locate borings with an estimated horizontal accuracy of +/- 20 feet. If more precise elevation and boring coordinates are desired, we recommend the borings be surveyed.

Subsurface Exploration Procedures: We advanced the borings with a truck-mounted rotary drill rig using air rotary drilling method. Five samples were obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. In the split-barrel sampling procedure, a standard 2-inch outer diameter split-barrel sampling spoon was driven into the ground by a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. For safety purposes, all borings were backfilled with auger cuttings after their completion.

We also observed the boreholes while drilling and at the completion of drilling for the presence of groundwater. Groundwater was not observed at these times in the boreholes.

The sampling depths, penetration distances, and other sampling information was recorded on the field boring logs. The samples were placed in appropriate containers and taken to our soil laboratory for testing and classification by a Geotechnical Engineer. Our exploration team prepared field boring logs as part of the drilling operations. These field logs included visual classifications of the materials observed during drilling and our interpretation of the subsurface conditions between samples. Final boring logs were prepared from the field logs. The final boring logs represent the Geotechnical Engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.

## Laboratory Testing

The project engineer reviewed the field data and assigned laboratory tests. The laboratory testing program included the following types of tests:

- Moisture Content
- Dry Unit Weight
- Atterberg Limits

The laboratory testing program often included examination of soil samples by an engineer. Based on the results of our field and laboratory programs, we described and classified the soil samples in accordance with the Unified Soil Classification System.

# Photography Log



Boring B-1



Boring B-2



Site Picture 1 (Picture taken facing Northeast of the site)



Site Picture 2 (Picture taken facing East of the site)

# Site Location and Exploration Plans

Contents:

Site Location Plan
Exploration Plan

Note: All attachments are one page unless noted above.


Facilities | Environmental | Geotechnical | Materials

## SITE LOCATION

Midland North CCS ■ Midland County, TX
July 14, 2023 ■ Terracon Project No. A4235100



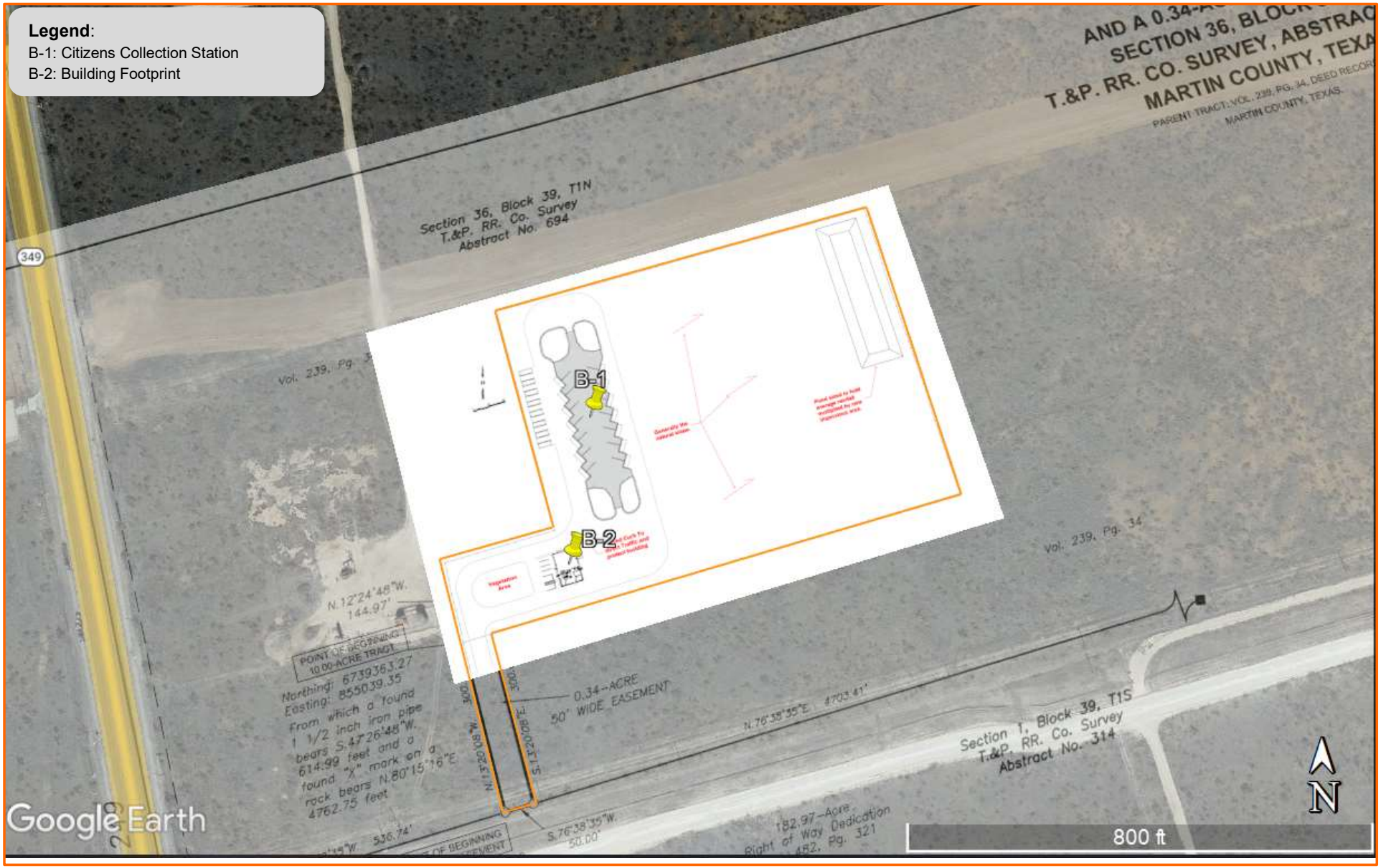

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS




DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS


Legend:
B-1: Citizens Collection Station
B-2: Building Footprint
B-1
B-2
Section 36, Block 39, T1N
T.&P. RR. Co. Survey
Abstract No. 694
Section 1, Block 39, T1S
T.&P. RR. Co. Survey
Abstract No. 314
0.34-ACRE
50' WIDE EASEMENT
182.97-Acre
Right of Way Dedication
Vol. 239, Pg. 321
349
800 ft
N
Google Earth

# Exploration and Laboratory Results

Contents:

Boring Logs (2 pages)
Atterberg Limits
Grain Size Distribution

Note: All attachments are one page unless noted above.

Midland North CCS
2.5 Miles North-Northwest of Intersection of US Highway 349 and Occidental Parkway | Midland County, TX
Terracon Project No. A4235100

Terracon
10400 State Highway 191
Midland, TX

# Boring Log No. B-1

Location: See Exploration Plan

Latitude: 32.1038° Longitude: -102.0956°

Depth (Ft.) Elevation: 2851 (Ft.) +/-

| Model Layer | Graphic Log | | Depth (Ft.) | Water Level Observations | Sample Type | Field Test Results | Water Content (%) | Atterberg Limits LL-PL-PI | Percent Fines |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | **CLAYEY GRAVEL WITH SAND (GC)**, dark brown, very dense | | | | 6-36-50/2" | 11.0 | 33-15-18 | 19 |
| | | 2.0 2849 | | | | | | | |
| 2 | | **SILTY CLAYEY SAND WITH GRAVEL, locally called caliche (SC-SM)**, dark brown to tannish white, very dense | | | | 50/5" | | | |
| | | | 5 | | | 50/3" | | | |
| | | | | | | 29-50/2" | | | |
| | | | | | | 50/2" | 1.2 | 25-18-7 | |
| | | | 10 | | | | | | |
| | | | | | | 50/4" | | | |
| | | | 15 | | | | | | |
| | | | | | | 50/2" | | | |
| | | | 20 | | | | | | |
| | | 24.0 2827 | | | | 50/3" | | | |
| | | ***Boring Terminated at 24 Feet*** | | | | | | | |

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

**Water Level Observations**
No groundwater encountered while drilling

Dry at the completion of drilling

**Drill Rig**
CME-75

**Hammer Type**
Automatic

**Driller**
Antonio

**Logged by**
Eddie S.

**Boring Started**
06-09-2023

**Boring Completed**
06-09-2023

**Notes**
Elevation Reference: Elevation information obtained from Google Earth

**Advancement Method**
Air rotary

**Abandonment Method**
Boring backfilled with auger cuttings upon completion.

PACKET 11.725 November 14, 2023

Midland North CCS
2.5 Miles North-Northwest of Intersection of US Highway 349 and Occidental Parkway | Midland County, TX
Terracon Project No. A4235100

Terracon
10400 State Highway 191
Midland, TX

# Boring Log No. B-2

Location: See Exploration Plan

Latitude: 32.1031° Longitude: -102.0957°

Depth (Ft.) Elevation: 2850 (Ft.) +/-

| Model Layer | Graphic Log | | Depth (Ft.) | Water Level Observations | Sample Type | Field Test Results | Water Content (%) | Atterberg Limits LL-PL-PI | Percent Fines |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | **CLAYEY GRAVEL WITH SAND (GC)**, dark brown, very dense | | | | 13-28-50/3" | | | |
| | | 2.0 2848 | | | | | | | |
| 2 | | **SILTY CLAYEY SAND WITH GRAVEL, locally called caliche (SC-SM)**, dark brown to tannish white, very dense | | | | 50/4" | | | |
| | | | 5 | | | 50/3" | | | |
| | | | | | | 50/4" | | | |
| | | | | | | 50/2" | | | |
| | | | 10 | | | | | | |
| | | | | | | 50/3" | | | |
| | | | 15 | | | | | | |
| | | | | | | 50/2" | 1.3 | 25-18-7 | |
| | | | 20 | | | | | | |
| | | 24.0 2826 | | | | 50/2" | | | |
| | | ***Boring Terminated at 24 Feet*** | | | | | | | |

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

**Water Level Observations**
No groundwater encountered while drilling

Dry at the completion of drilling

**Drill Rig**
CME-75

**Hammer Type**
Automatic

**Driller**
Antonio

**Logged by**
Eddie S.

**Boring Started**
06-09-2023

**Boring Completed**
06-09-2023

**Notes**
Elevation Reference: Elevation information obtained from Google Earth

**Advancement Method**
Air rotary

**Abandonment Method**
Boring backfilled with auger cuttings upon completion.

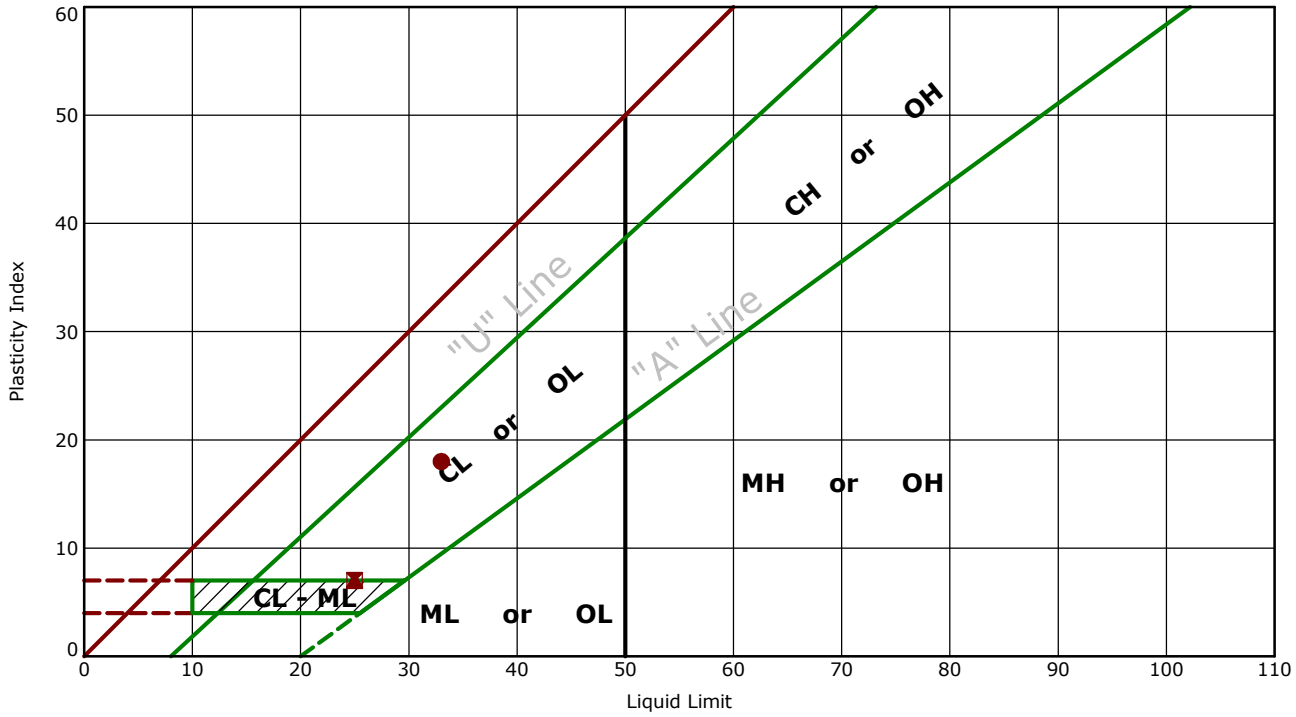
PACKET 11.726 November 14, 2023

Midland North CCS
2.5 Miles North-Northwest of Intersection of US Highway 349 and Occidental Parkway | Midland County, TX
Terracon Project No. A4235100

10400 State Highway 191
Midland, TX

# Atterberg Limit Results

## ASTM D4318



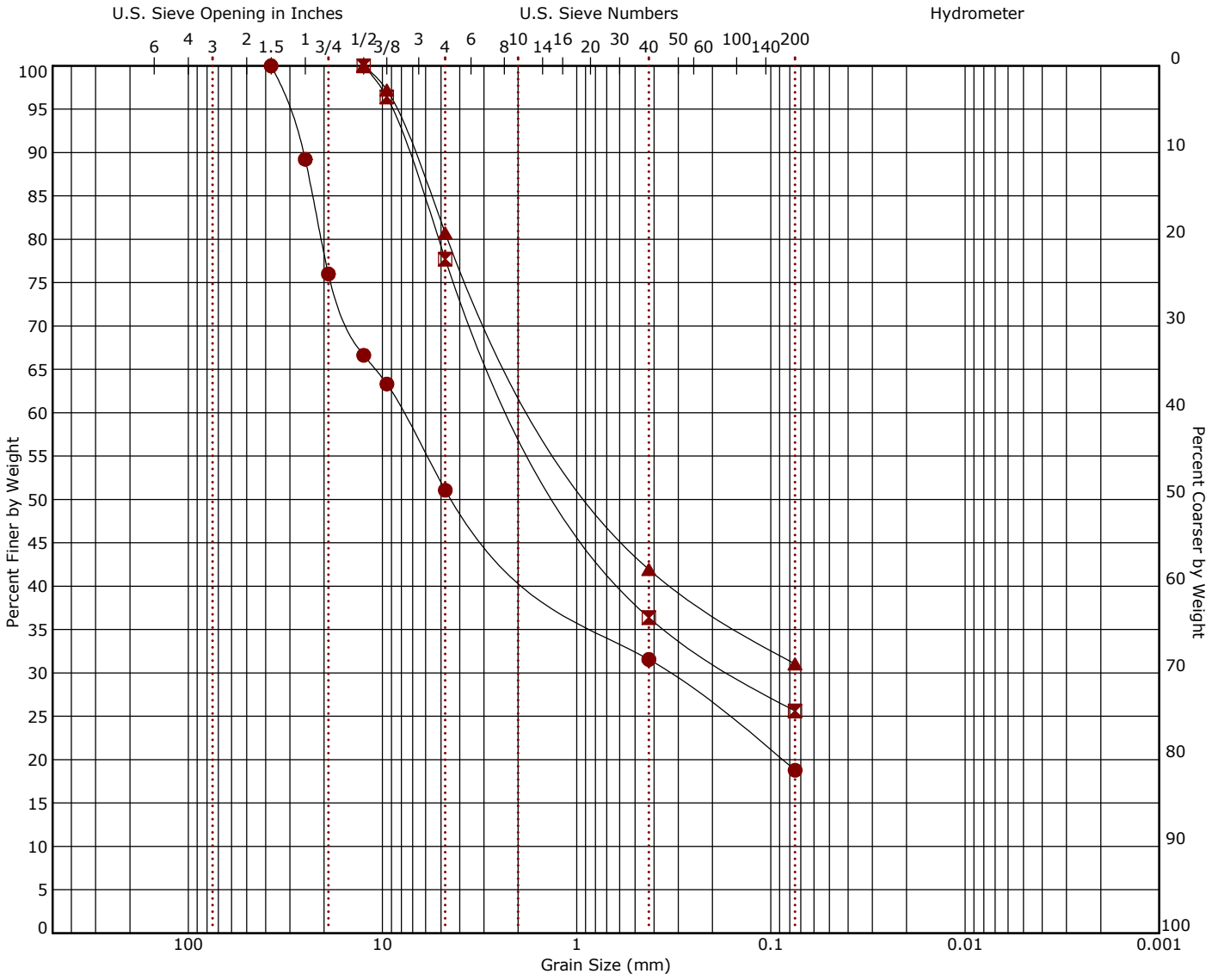

| | Boring ID | Depth (Ft) | LL | PL | PI | Fines | USCS | Description |
|---|---|---|---|---|---|---|---|---|
| ● | B-1 | 0 - 1.2 | 33 | 15 | 18 | 18.8 | GC | CLAYEY GRAVEL with SAND |
| ⊠ | B-1 | 8.5 - 8.7 | 25 | 18 | 7 | | SC-SM | SILTY, CLAYEY SAND with GRAVEL |
| ▲ | B-2 | 18.5 - 18.7 | 25 | 18 | 7 | | SC-SM | SILTY, CLAYEY SAND with GRAVEL |


Laboratory tests are not valid if separated from original report.
Facilities | Environmental | Geotechnical | Materials

Terracon
10400 State Highway 191
Midland, TX

# Grain Size Distribution

## ASTM D422 / ASTM C136




| Cobbles | Gravel | | Sand | | | Silt or Clay |
|---|---|---|---|---|---|---|
| | coarse | fine | coarse | medium | fine | |

| | Boring ID | Depth (Ft) | Description | | LL | PL | PI | Cc | Cu |
|---|---|---|---|---|---|---|---|---|---|
| ● | B-1 | 0 - 1.2 | CLAYEY GRAVEL with SAND | | 33 | 15 | 18 | | |
| ⊠ | B-1 | 8.5 - 8.7 | SILTY, CLAYEY SAND with GRAVEL | | 25 | 18 | 7 | | |
| ▲ | B-2 | 18.5 - 18.7 | SILTY, CLAYEY SAND with GRAVEL | | 25 | 18 | 7 | | |

| | Boring ID | Depth (Ft) | $D_{100}$ | $D_{60}$ | $D_{30}$ | $D_{10}$ | %Cobbles | %Gravel | %Sand | %Fines | %Silt | %Clay |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ● | B-1 | 0 - 1.2 | 37.5 | 7.874 | 0.344 | | 0.0 | 48.9 | 32.3 | 18.8 | | |
| ⊠ | B-1 | 8.5 - 8.7 | 12.5 | 1.688 | 0.152 | | 0.0 | 22.3 | 52.1 | | | |
| ▲ | B-2 | 18.5 - 18.7 | 12.5 | 1.308 | | | 0.0 | 19.3 | 49.7 | | | |



Laboratory tests are not valid if separated from original report.

# Supporting Information

Contents:

General Notes
Unified Soil Classification System

Note: All attachments are one page unless noted above.

Terracon
10400 State Highway 191
Midland, TX

# General Notes

| Sampling | Water Level | Field Tests |
|---|---|---|
| Standard Penetration Test | Water Initially Encountered<br>Water Level After a Specified Period of Time<br>Water Level After a Specified Period of Time<br>Cave In Encountered<br>Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations. | N Standard Penetration Test Resistance (Blows/Ft.)<br>(HP) Hand Penetrometer<br>(T) Torvane<br>(DCP) Dynamic Cone Penetrometer<br>UC Unconfined Compressive Strength<br>(PID) Photo-Ionization Detector<br>(OVA) Organic Vapor Analyzer |

## Descriptive Soil Classification

Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

## Location And Elevation Notes

Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See Exploration and Testing Procedures in the report for the methods used to locate the exploration points for this project. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

## Strength Terms

**Relative Density of Coarse-Grained Soils**
(More than 50% retained on No. 200 sieve.)
Density determined by Standard Penetration Resistance

| Relative Density | Standard Penetration or N-Value (Blows/Ft.) |
|---|---|
| Very Loose | 0 - 3 |
| Loose | 4 - 9 |
| Medium Dense | 10 - 29 |
| Dense | 30 - 50 |
| Very Dense | > 50 |

**Consistency of Fine-Grained Soils**
(50% or more passing the No. 200 sieve.)
Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance

| Consistency | Unconfined Compressive Strength Qu (tsf) | Standard Penetration or N-Value (Blows/Ft.) |
|---|---|---|
| Very Soft | less than 0.25 | 0 - 1 |
| Soft | 0.25 to 0.50 | 2 - 4 |
| Medium Stiff | 0.50 to 1.00 | 4 - 8 |
| Stiff | 1.00 to 2.00 | 8 - 15 |
| Very Stiff | 2.00 to 4.00 | 15 - 30 |
| Hard | > 4.00 | > 30 |

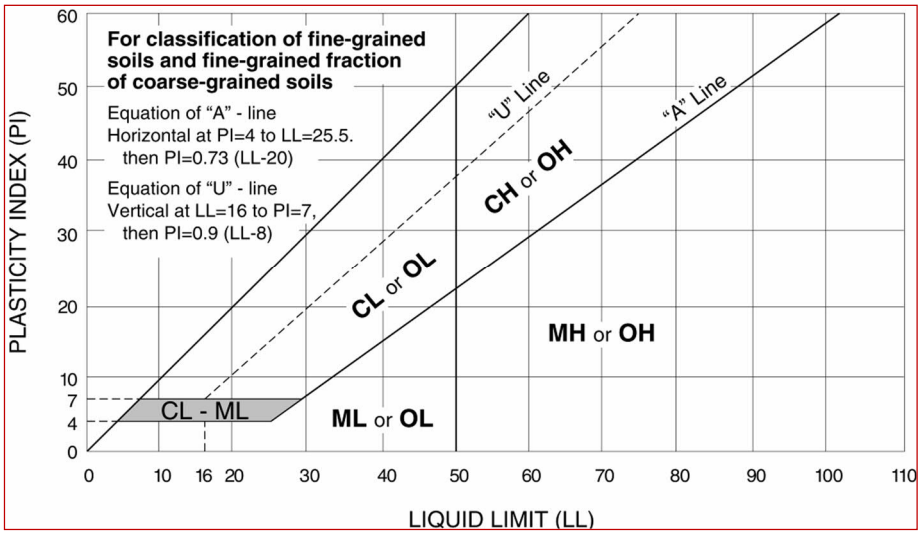
## Relevance of Exploration and Laboratory Test Results

Exploration/field results and/or laboratory test data contained within this document are intended for application to the project as described in this document. Use of such exploration/field results and/or laboratory test data should not be used independently of this document.

## Unified Soil Classification System

| Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A] | | | | Soil Classification | |
|---|---|---|---|---|---|
| | | | | Group Symbol | Group Name [B] |
| Coarse-Grained Soils: More than 50% retained on No. 4 sieve | Gravels: More than 50% of coarse fraction retained on No. 4 sieve | Clean Gravels: Less than 5% fines [C] | Cu≥4 and 1≤Cc≤3 [E] | GW | Well-graded gravel [F] |
| | | | Cu<4 and/or [Cc<1 or Cc>3.0] [E] | GP | Poorly graded gravel [F] |
| | | Gravels with Fines: More than 12% fines [C] | Fines classify as ML or MH | GM | Silty gravel [F, G, H] |
| | | | Fines classify as CL or CH | GC | Clayey gravel [F, G, H] |
| | Sands: 50% or more of coarse fraction passes No. 4 sieve | Clean Sands: Less than 5% fines [D] | Cu≥6 and 1≤Cc≤3 [E] | SW | Well-graded sand [I] |
| | | | Cu<6 and/or [Cc<1 or Cc>3.0] [E] | SP | Poorly graded sand [I] |
| | | Sands with Fines: More than 12% fines [D] | Fines classify as ML or MH | SM | Silty sand [G, H, I] |
| | | | Fines classify as CL or CH | SC | Clayey sand [G, H, I] |
| Fine-Grained Soils: 50% or more passes the No. 200 sieve | Silts and Clays: Liquid limit less than 50 | Inorganic: | PI > 7 and plots above "A" line [J] | CL | Lean clay [K, L, M] |
| | | | PI < 4 or plots below "A" line [J] | ML | Silt [K, L, M] |
| | | Organic: | $\frac{LL\ oven\ dried}{LL\ not\ dried} < 0.75$ | OL | Organic clay [K, L, M, N] |
| | | | | | Organic silt [K, L, M, O] |
| | Silts and Clays: Liquid limit 50 or more | Inorganic: | PI plots on or above "A" line | CH | Fat clay [K, L, M] |
| | | | PI plots below "A" line | MH | Elastic silt [K, L, M] |
| | | Organic: | $\frac{LL\ oven\ dried}{LL\ not\ dried} < 0.75$ | OH | Organic clay [K, L, M, P] |
| | | | | | Organic silt [K, L, M, Q] |
| Highly organic soils: | Primarily organic matter, dark in color, and organic odor | | | PT | Peat |

[A] Based on the material passing the 3-inch (75-mm) sieve.
[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.
[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay.
[E] $Cu = D_{60}/D_{10}$ $Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
[F] If soil contains ≥ 15% sand, add "with sand" to group name.
[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.
[H] If fines are organic, add "with organic fines" to group name.
[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.
[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.
[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.
[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.
[N] PI ≥ 4 and plots on or above "A" line.
[O] PI < 4 or plots below "A" line.
[P] PI plots on or above "A" line.
[Q] PI plots below "A" line.



**DOCUMENT 00 42 00 - PROPOSAL FORM**

Date: _____ 20___

City of Midland
300 North Loraine Street
Midland, Texas 79701

City Secretary:

The undersigned, having carefully examined the specifications, drawings, and related documents entitled:

WEST AND NORTH CITIZENS' COLLECTION STATIONS
MIDLAND, TEXAS

all as prepared by Parkhill 1700 West Wall Street, Suite 100, Midland, Texas 79701; 432.697.1447, as well as having attended a pre-proposal conference and made an on-site inspection of the premises and all other conditions affecting the cost and/or execution of the Work, proposes to furnish all materials, labor, and equipment necessary to complete the Work in accordance with said documents, of which this bid is a part, for the following sum:

**I.** ALTERNATE #1 PROPOSAL:_____

_____Dollars ($_____)

**II.** ALTERNATE #2 PROPOSAL:_____

_____Dollars ($_____)

TOTAL PROPOSAL INCLUDING BOTH ALTERNATES AS ONE PROJECT:

_____Dollars ($_____)

(**Note:** All amounts shall be shown in both written and figure form. In case of discrepancy between the written amount and the figure, the written amount will govern. For alternates, check whether it is an add, deduct or no change.)

We have included, in the Proposal sum, all applicable taxes and all material and contingency allowances described in Section 01 20 00 "Price and Payment Procedures."

The undersigned acknowledges receipt of ___addenda to the Drawings and Project Manual as follows:

| No. | Date | No. | Date | No. | Date |
|---|---|---|---|---|---|
| No. | Date | No. | Date | No. | Date |

(The Proposer is to fill in I.D. Number and date of each thereby acknowledging receipt of Addenda).
If awarded the contract, the undersigned agrees to commence work under this contract on or before


PACKET 11.732 November 14, 2023
REBID

a date to be specified in Written Notice to Proceed, and to substantially complete the project within _____ calendar days from said commencement date, unless modified in change order.

Proposer agrees to pay the Owner $500.00 per day, as liquidated damages, for each day the Substantial Completion of this Project extends beyond the stipulated Substantial Completion date.

If notified of the acceptance of this bid within 60 days of the time set for the opening of proposals, Proposer agrees within 10 days of notification, to execute a contract in the form provided by the City of Midland for the above Work, for the above stated compensation.

PROPOSAL SECURITY, as defined in the Request For Proposals and Instructions to Proposers, which the Undersigned agrees to disposition of, is attached to this Proposal.

Upon acceptance of this Proposal by Owner, Contractor shall furnish, at the time of the signing of the contract, a PERFORMANCE BOND AND LABOR/MATERIAL PAYMENT BOND, in the amount of 100 percent of the Contract Price. Surety shall meet requirements specified in the Owner/Contractor Agreement.

It is understood that the Owner reserves the right to accept or reject any and all Proposals and to waive all formalities in accordance with State law.

ATTACHMENTS

In accordance with Instructions to Proposers, complete the attached forms and submit with the Proposal Form.

Appendix A – List of Subcontractors: Include names of all subcontractors and portions of the Work each subcontractor will perform.

Appendix B – Resident Bidder Certification.

Respectfully Submitted,

By:_____

Title:_____

Business Address with Zip Code

(SEAL: If Proposal is by Corporation)

_____

_____

_____

Telephone Number with Area Code _____

Fill in the applicable information:

A Corporation, chartered in the State of _____.

Authorized to do business in the State of Texas.

A Partnership, composed of _____, and _____, and _____.

An Individual operating under the name of _____ _____.

Corporate Seal:

END PROPOSAL FORM


PACKET 11.734 November 14, 2023

**DOCUMENT 00 43 00 - PROCUREMENT FORM SUPPLEMENTS**

To: City of Midland

Project: West and North Citizens' Collection Stations

Date: _____

Submitted by: _____
(full name)

(full address) _____

_____

In accordance with Instructions to Proposers and the - Proposal Form, we include the following Appendices listed below. The information provided shall be considered an integral part of the Proposal Form.
The following Appendices are attached to this document:

Appendix A - List of Subcontractors: Include names of all Subcontractors and portions of the Work each Subcontractor will perform.

Appendix B - Resident Bidder Certification.

PROPOSAL FORM SUPPLEMENTS SIGNATURES

The Corporate Seal of

.....
(Proposer - print the full name of your firm)

was hereunto affixed in the presence of:

.....
(Authorized signing officer Title)

(Seal)

.....
(Authorized signing officer Title)

(Seal)


PACKET 11.735 November 14, 2023

APPENDIX A - LIST OF SUBCONTRACTORS AND MAJOR MATERIAL SUPPLIERS

Herewith is the list of subcontractors and major material suppliers referenced in the proposal submitted by:

Proposer) _____

To (Owner) City of Midland

Dated _____ and which is an integral part of the Proposal Form.

The following work will be performed (or provided) by subcontractors and coordinated by us:

| WORK SUBJECT/MATERIAL SUPPLIER | NAME |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |


PACKET 11.736 November 14, 2023

APPENDIX B - RESIDENT BIDDER CERTIFICATION

**RESIDENT BIDDER CERTIFICATION**

In order for the proposal to be considered, the following information must be provided. **Failure to complete may result in rejection of the proposal:**

As defined by Texas Government Code Section 2252.01 et seq., a "nonresident bidder" means a bidder whose principal place of business is not in Texas but excludes a contractor whose ultimate parent company or majority owner has its principal place of business in Texas.

I certify that my company is a "resident bidder":

Signature: _____ Date: _____

If you qualify as a "nonresident bidder," you must furnish the following information:
What is your resident state? (The state your principal place of business is located.)

City: _____ State: _____ Zip: _____

Company Name: _____ Address: _____

(A) Does your "residence state" require bidders whose principal place of business is in Texas to underbid bidders whose residence state is in the same as yours by a prescribed amount or percentage to receive a comparable contract? "Residence state" means the state in which the principal place of business is located. YES_____ NO_____

(B) What is the amount or percentage? _____%

I certify that the above information is correct.

_____

Typed Name/Position Company Name

END OF DOCUMENT



PACKET 11.737 November 14, 2023

# SECTION 00 52 00 – AGREEMENT FORM

## PART 1 - GENERAL

1.1 APPLICABLE DOCUMENT

A. The Agreement for the Work will be written on the Owner provided form and that follows Section 00 80 10 "Owner Documents."

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION (Not Used

END OF SECTION


PACKET
11.738
November 14, 2023

**DOCUMENT 00 54 10 - WEATHER TABLE**
**(MIDLAND, TX)**

The number of calendar days indicated on Document 00 11 20 "Request for Proposals" is the contract time allowed to complete the project from Notice to Proceed to Substantial Completion, taking into account the normal weather occurrence as shown in the Table below. Weather occurrences exceeding those listed in the table will be taken into consideration when evaluating a request for extension in contract time.

| MONTH | MEAN NUMBER DAYS PRECIPITATION (0.01" OR MORE) | NORMAL PRECIPITATION (WATER EQUIVALENT) (INCHES) | MEAN NUMBER DAYS SNOWFALL (INCLUDING ICE PELLETS/SLEET) (1.0" OR MORE) | AVERAGE NUMBER OF DAYS THAT MIN. TEMP IS < 40 |
|---|---|---|---|---|
| JANUARY | 2.8 | 1.28 | 0 | 25.6 |
| FEBRUARY | 2.6 | 1.02 | 0.2 | 16.8 |
| MARCH | 4 | 1.95 | 0 | 4.8 |
| APRIL | 3 | 1.42 | 0 | 2 |
| MAY | 4.6 | 2.00 | 0 | 0 |
| JUNE | 5.2 | 2.01 | 0 | 0 |
| JULY | 4 | 1.47 | 0 | 0 |
| AUGUST | 5.6 | 2.06 | 0 | 0 |
| SEPTEMBER | 6.6 | 2.38 | 0 | 0 |
| OCTOBER | 3.8 | 1.58 | 0 | 3.4 |
| NOVEMBER | 2 | 0.89 | 0 | 8.6 |
| DECEMBER | 3.6 | 1.16 | 0 | 19.8 |
| ANNUALLY | 42.5 | 15.68 | 1.9 | 107.4 |

This table is based on information from NOAA and measured at the Midland International Airport, Midland, Texas.

Means, normals and averages are based on records covering a period of 5 years from 2016-2020.


PACKET
11.739
November 14, 2023

## SECTION 00 80 10 – OWNER DOCUMENTS

### PART 1 - GENERAL

1.1 APPLICABLE DOCUMENT

A. Owner provided documents are as indicated below and that follows this Section.

1. Bid Bond.
2. Payment Bond.
3. Performance Bond.
4. Exhibit D- Building Wage Rate.
5. Conflict of Interest Reporting Requirements.
6. Conflict of Interest Questionnaire.
7. Affidavit of Eligibility.
8. Notice to Bidders.
9. General Conditions of Bidding.
10. Standard Purchase Terms and Conditions.
11. Contract.

### PART 2 - PRODUCTS (Not Used)

### PART 3 - EXECUTION (Not Used

END OF SECTION


PACKET 11.740 November 14, 2023

# SECTION 01 10 00 - SUMMARY

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Work covered by Contract Documents.
   2. Contractor's use of Site and premises.
   3. Permits.
B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Identification: West and North Citizens' Collection Stations.
B. Location: Midland, Texas.
C. Owner: City of Midland.
D. Work consists of construction of two citizen collection station facilities. Facility construction includes HMAC and concrete roadways, cast-in-place retaining wall, concrete paved parking lot, electrical services, light poles, and building construction. Building construction includes erection of prefabricated metal building, HVAC, plumbing, electrical, and interior finish.

1.3 CONTRACTOR'S USE OF SITE AND PREMISES

A. Limits on Use of Site:
   1. Owner occupancy.
   2. Work by others.
B. Construction Operations: Limited to areas noted on Drawings.
C. Time Restrictions for Performing Work:
   1. 7:00 a.m. to 7:00 p.m. Monday through Friday.
D. Utility Outages and Shutdowns:
   1. Coordinate and schedule utility outages/shutdown.
   2. Allowed only as preiously agreed upon.
   3. Schedule at least 1 week before outage/shutdown.
   4. Submit early request of outage/shutdown to Engineer itemizing dates, times, and durations.

1.4 PERMITS

A. Furnish all necessary permits for construction of Work including:
   1. Building permit.
   2. Stormwater permit.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 20 00 - PRICE AND PAYMENT PROCEDURES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Material allowances.
   2. Contingency allowance.
   3. Inspection and testing allowances.
   4. Schedule of Values.
   5. Application for Payment.
   6. Change Procedures.
   7. Alternates.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.
   2. Section 01 30 00 "Administrative Requirements" for Project information management.
   3. Section 01 33 00 "Submittal Procedures" for Schedule of Values.
   4. Section 01 60 00 "Product Requirements" for product substitutions.

### 1.2 MATERIAL ALLOWANCES

A. Costs Included in Material Allowances: Cost of product (materials and equipment) to Contractor or subcontractor, less applicable trade discounts, delivery to Site, and applicable taxes.

B. Costs Not Included in Material Allowance, but Included in Contract Sum/Price: Handling at Site, including unloading, uncrating, and storage; protection of products from elements and from damage, labor, payroll (including taxes, benefits, pensions, insurance, and other employee wage costs), installation and finishing costs, bonds, project insurance (workers comp, auto, general liability, builders risk, and other insurance required by the Owner/Contractor agreement), overhead, profit, and other expenses contemplated for stated allowance amounts.

C. Engineer Responsibilities:
   1. Consult with Contractor in consideration and selection of product, suppliers.
   2. Select products in consultation with Owner and transmit decision to Contractor.
   3. Prepare Change Order.

D. Contractor Responsibilities:
   1. Assist Engineer in selection of product and suppliers.
   2. Obtain proposals from suppliers and offer recommendations.
   3. On notification of selection by Engineer, execute purchase agreement with designated supplier.
   4. Arrange for and process Shop Drawings, product data, and samples. Arrange for delivery.
   5. Promptly inspect products upon delivery for completeness, damage, and defects. Submit claims for transportation damage.

E. Funds will be drawn from Cash Allowances only by Change Order.

F. At closeout of Contract, funds remaining in Cash Allowances will be credited to Owner by Change Order.

1.3 CONTINGENCY ALLOWANCE

A. Include stipulated sum of $300,000.00 for use upon Owner's instruction.
B. Costs Included in Contingency Allowance: Contractor's costs for products, equipment, delivery, installation, labor, payroll (including taxes, benefits, pensions, insurance, and other employee wage costs), applicable taxes, and equipment rental; handling at Site, including unloading, uncrating, and storage; protection of products from elements and from damage; finishing costs.
C. Costs Not Included in Contingency Allowance, but Included in Contract Sum/Price: Bonds, project insurance (workers comp, auto, general liability, builders risk, and other insurances required by the Owner/Contractor agreement), overhead, profit, and other expenses contemplated for stated allowance amounts.
D. Funds will be drawn from Contingency Allowance only by Change Order.
E. At closeout of Contract, funds remaining in Contingency Allowance will be credited to Owner by Change Order.

1.4 INSPECTION AND TESTING ALLOWANCES

A. Costs Included in Allowances:
   1. Engaging an inspection/testing firm,
   2. Execute inspection/tests, and
   3. Report results.
B. Costs Not Included in Allowance but Included in Contract Price:
   1. Incidental labor and facilities required to assist inspection or testing firm.
   2. Costs of testing laboratory services required by Contractor separate from Contract Document requirements.
   3. Costs of retesting upon failure of previous tests as determined by Engineer.
C. Payment Procedures:
   1. Submit inspection or testing firm's invoice with next application for payment.
   2. Pay invoice upon Engineer approval.
D. Inspection and Testing Allowances: Include stipulated sum of $30,000.00 for payment of testing laboratory services.
E. Funds will be drawn from Inspection and Testing Allowances only by Change Order.
F. At Contract closeout, funds remaining in Inspection and Testing Allowances will be credited to Owner by Change Order.

1.5 SCHEDULE OF VALUES

A. Submit typed schedule on AIA Form G703 - Application and Certificate for Payment Continuation Sheet.
B. Submit Schedule of Values within 15 days after date established in Notice to Proceedor of Owner-Contractor Agreement.

C. Format: Utilize Table of Contents (TOC) of this Project Manual. Identify each line item with number and title of major Specifications , separating labor and material for each line item. Identify Site mobilization, general conditions, testing, bonds, and insurance as separate line items.
D. Include in each line item amount of Allowances specified in this Section.
E. Include separately from each line item, a directly proportional amount of Contractor's overhead and profit.

F. Revise schedule to list approved Change Orders with each Application For Payment.

1.6 APPLICATIONS FOR PAYMENT

A. Submit notarized application on AIA Form G702 - Application and Certification for payment and AIA G703 - Continuation Sheet.
B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
C. Deposits on Material, Equipment, or Products:
   1. Material/Equipment Deposits: Owner will not pay for deposits for material, equipment or products that may be required of the Contractor in order to start the fabrication process of Work that will eventually be incorporated into the Project, but are not actually on the Project site. All material, equipment, or products must be on the Project site and properly stored before the Owner will make payment to the Contractor.
   2. The Owner will make payment for materials, equipment, or products that are properly delivered and stored on the Project site for subsequent incorporation into the Project as authorized in the Owner/Contractor Agreement.
   3. Owner may consider payment of materials, equipment, or products that are properly stored, secured, and insured in a third party warehouse within a 50 mile radius of the Project site that are in accordance with the requirements and authorized in the Owner/Contractor Agreement.
D. Payment Period: As defined in Owner-Contractor agreement.
E. Complete Application for Payment includes one copy of waiver of liens from each subconstractor, Construction progress schedule, and submittal schedule, all required to process Application for Payment.

1.7 CHANGE PROCEDURES

A. Engineer will advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time as authorized by Owner/Contractor Agreement by issuing Engineer's supplemental instructions AIA Form G710.
B. Engineer may issue a Construction Change Request including a detailed description of proposed change with supplementary or revised Drawings and Specifications and a change in Contract Time for executing change. Contractor will prepare and submit proposed change in Contractor Price and/or Time within 7 days.
C. Contractor may propose changes by submitting a request for change to Engineer, describing proposed change, and its full effect on Work. Include a statement describing reason for change, effect on Contract Sum/Price and Time, and subcontractor with full documentation. Documt requested substitution in accordance with Section 01 60 00 "Product Requirements."
D. Stipulated Price Change Order: Based on Proposal Request and Contractor's fixed price quotation or Contractor's request as recommended by Engineer and accepted by Owner and Contractor.
E. Unit Price Change Order: For Contract unit prices and quantities, Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units not predetermined, execute Work under Construction Change Directive as recommended by Engineer and accepted by Owner and Contractor. Changes in Contract Sum/Price or Contract Time will be computed as specified for Time and Material Change Order.

F. Construction Change Directive: Engineer may issue directive on AIA Form G713 Construction Change Directive signed by Owner, instructing Contractor to proceed with change in Work, for subsequent inclusion in Change Order. Document will describe changes in Work and designate method of determining any change in Contract Price or Time. Promptly execute change.

G. Time and Material Change Order:
   1. Submit itemized account and supporting data after completion of change, within time limits indicated in Conditions of the Contract.
   2. Engineer will determine change allowable in Contract Sum/Price and Contract Time as provided in Contract Documents.
   3. Maintain detailed records of work done on Time and Material basis.
   4. Provide full information required for evaluation of proposd changes, and to substantiate costs for changes in Work.

H. Change Order Forms: AIA G701 Change Order.

I. Execution of Change Orders: Engineer will issue Change Orders for signatures of parties as provided in Conditions of the Contract.

J. Change Order: Furnish an itemized breakdown, in form acceptable to Engineer, of costs and supporting information included, but not limited to, quantities and material prices, tier subcontracted work performed at labor rates, employer payments, and rental rates. Itemize breakdown detail shall be same for subcontractor work. Provide complete supporting information for profit and overhead or markups used when requested. Consider the following items a part of overhead or Constractor's and subcontractor's mark-up and do not include as separate cost item: Labor for superintendents, assistant superintendents, home office personnel, timekeepers, and maintenance mechanics at any level of contracting; individual pieces of equipment, hand tools, or instruments having a new value of $500.00 or less, whether or not consumed by use; on-site and main offices; modification to record Contract Documents; nor guarantee period costs.

1.8 ALTERNATES

A. Alternates quoted on Proposal Form will be reviewed or rejected by Owner. Accepted Alternates are identified in Owner/Contractor Agreement.

B. Coordinate related Work and modify surrounding Work as required.

C. Schedule of Alternates:
   1. Alternate No. 1: West Citizens' Collection Station.
   2. Alternate No. 2: North Citizens' Collection Station.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 25 00 - SUBSTITUTION PROCEDURES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section includes administrative and procedural requirements for substitutions.
B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.
   2. Section 00 26 00 "Procurement Substitution Procedures" for requirements for substitution requests prior to award of Contract.
   3. Section 01 60 00 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

### 1.2 DEFINITIONS

A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents.
   1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
   2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required to meet other Project requirements but may offer advantage to Owner.

### 1.3 ACTION SUBMITTALS

A. Substitution Requests: Submit documentation identifying product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
   1. Substitution Request Form: Use CSI Substitution Request Form 1.5C.
   2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
      a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
      b. Coordination of information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
      c. Detailed comparison of significant qualities of proposed substitutions with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes, such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
      d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
      e. Samples, where applicable or requested.
      f. Certificates and qualification data, where applicable or requested.
      g. List of similar installations for completed projects, with project names and addresses as well as names and addresses of architects and owners.

h. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.
i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
j. Detailed comparison of Contractor's construction schedule using proposed substitutions with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
k. Cost information, including a proposal of change, if any, in the Contract Sum.
l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, except as indicated in substitution request, is compatible with related materials and is appropriate for applications indicated.
m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within 7 days of receipt of a request for substitution. Architect will notify Contractor through Construction Manager of acceptance or rejection of proposed substitution within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.4 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.5 PROCEDURES

A. Coordination: Revise or adjust affected Work as necessary to integrate work of the approved substitutions.

1.6 SUBSTITUTIONS

A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
b. Substitution request is fully documented and properly submitted.

c. Requested substitution will not adversely affect Contractor's construction schedule.
d. Requested substitution has received necessary approvals of authorities having jurisdiction.
e. Requested substitution is compatible with other portions of the Work.
f. Requested substitution has been coordinated with other portions of the Work.
g. Requested substitution provides specified warranty.
h. If requested substitution involves more than 1 contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

B. Substitutions for Convenience: Architect will consider requests for substitution if received within 60 days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect.
1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
b. Requested substitution does not require extensive revisions to the Contract Documents.
c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
d. Substitution request is fully documented and properly submitted.
e. Requested substitution will not adversely affect Contractor's construction schedule.
f. Requested substitution has received necessary approvals of authorities having jurisdiction.
g. Requested substitution is compatible with other portions of the Work.
h. Requested substitution has been coordinated with other portions of the Work.
i. Requested substitution provides specified warranty.
j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 30 00 - ADMINISTRATIVE REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Project Information Management.
   2. Coordination.
   3. Preconstruction meeting.
   4. Electronic drawing file (digital data) request.
   5. Request for information.
   6. Progress meetings.
   7. Preinstallation meetings.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 PROJECT INFORMATION MANAGEMENT

A. Project Website:
   1. Use Newforma Info Exchange at https://projects.team-psc.com/UserWeb/Login to send and receive Project information.
   2. Contact Engineer to set up user name and password information.
   3. If Project is not listed when logged in, contact Engineer to add Project to your account.

B. Project information includes, but is not limited to:
   1. Product Submittals.
   2. Requests for Information (RFI).
   3. Applications for Payment.
   4. Schedules.
   5. Construction Change Requests (CCRs).
   6. Closeout Documents.
   7. Construction Document Files.

### 1.3 COORDINATION

A. Coordinate scheduling, submittals, and Work to assure efficient and orderly sequence of installation of construction elements.

B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various Sections having interdependent responsibilities for installing, connecting to, and placing such equipment in service.

C. Coordinate space requirements and installation of mechanical and electrical work indicated diagrammatically on Drawings. Follow routing as closely as practicable. Utilize spaces efficiently to maximize accessibility for other installations, maintenance, and repairs.

D. In finished building areas, except as otherwise indicated, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements as applicable.

E. Coordinate completion and clean-up of Work of separate Sections in preparation for Substantial Completion.
F. After Owner occupancy of premises, coordinate access to site with Owner for correction of defective Work and Work not in accordance with Contract Documents to minimize disruption of Owner's activities.

1.4 PRECONSTRUCTION MEETING

A. Engineer will schedule a meeting after Notice to Proceed.
B. Attendance Required:
   1. Owner.
   2. Engineer.
   3. Contractor.
   4. Major subcontractors.
C. Agenda:
   1. Distribute Contract Documents.
   2. Submit lists of subcontractors and products, Schedule of Values, submittal schedule, and progress schedule.
   3. Designate personnel representing each party in Contract and Engineer.
   4. Procedures and processing field decisions, submittals, substitutions, Applications for Payments, proposal request, Change Orders, Request for Information (RFI), and Contract closeout procedures.
   5. Review Notice to Proceed and Substantial/Final Completion Dates.
   6. Workmen's identification and background checks.
   7. Stormwater Pollution and Prevention Plan (SWPPP) if necessary.
   8. Scheduling:
      a. Use of premises by Owner and Contractor.
      b. Owner's requirements.
      c. Construction facilities and controls provided by Owner.
      d. Temporary utilities provided by Owner.
      e. Security and housekeeping procedures.
      f. Construction progress meetings.
      g. Procedures for testing.
      h. Procedures for maintaining record documents.
      i. Requirements for start-up of equipment.
      j. Inspection and acceptance of equipment put into service during construction.
   9. Scheduling activities of Construction Material Testing lab.
D. Engineer shall record minutes and distribute copies to participants.

1.5 ELECTRONIC DRAWING FILE (DIGITAL DATA) REQUEST

A. During Procurement Phase:
   1. Bidders and Proposers may purchase a Digital Data file. Digital Data file will be provided in software release currently used by Engineer. File will be provided via Engineer’s Project website.
   2. AutoCAD Drawing files (.dwg) are available for purchase from Engineer upon request. Cost of files are indicated below plus applicable tax.
      a. 1 – 3 Sheets: $100.00 per sheet.
      b. 4 – 6 Sheets: $400.00 flat fee.
      c. 7 – 9 Sheets: $500.00 flat fee.

3. Revit® BIM Model files (.rvt) are available for purchase from Engineer upon request. Cost of model files are $150.00 for each model plus applicable tax. All details, detail annotation, and reference are omitted and not part of the Model file.
4. Prior to delivery of file(s), purchaser shall sign a Digital Data Licensing Agreement. Payment for Digital Data file(s) shall occur upon delivery of file to purchaser.
5. Digital Data file(s) shall be used only for preparing Bids and Proposals required by this Project not used in any other form in whole or in part.

B. Upon Award of Contract:
1. At pre-construction meeting, Contractor shall bring the executed Digital Data Licensing Agreement (AIA C106-2013) at the end of this Section for release of electronic files. Upon Contractor submitting the executed Agreement to Engineer, Engineer will provide Contractor one electronic copy of the Revit® BIM Model file(s), AutoCAD (.dwg file(s), when Revit® BIM Model file is not available, and Portable Document Format (.pdf) file(s) at no charge within five working days. Note that CAD files associated with the Work can be accessed and exported from the Revit® BIM Model provided to Contractor through Revit® software; therefore, Engineer will not provide individual CAD files. Files and Formats to be as followed:
    a. Civil Overall master file in AutoCAD format.
        1) Overall Site Plan with utility and grading information.
        2) All details, detail annotation, and references are omitted and not part of the AutoCAD file.
    b. Landscape: Overall master file in AutoCAD format.
        1) Overall Site Plan with grading, flatwork, irrigation, and planting plans.
        2) All details, detail annotation, and references are omitted and not part of the AutoCAD file.
    c. Structural: Revit® BIM Model and associated working plans views.
        1) Overall Site Plan with utility and grading information.
        2) All details, detail annotation, and reference are omitted and not part of the AutoCAD file.
    d. Architectural/Interior: Revit® BIM Model and associated working plan views.
        1) Plan views contain overall and enlarged section plan view set-up of floor plans, floor patterns, reflected ceilings, and roof plans only. All plan views contain grids, dimensions, room names, and general annotation.
        2) Reflected Ceiling Plans contain ceilings grids and types only. Lighting and mechanical are provided as part of the MEP Model.
        3) Roof Plans contain grids and general annotation only. Mechanical is provided as part of the MEP Model.
        4) Interior and exterior elevations and schedules.
        5) Finish plans and finish schedules.
        6) All details, details annotation, and references are omitted and not part of the model life.
    e. Mechanical, Electrical, and Plumbing: Revit® BIM Model and associated working plan views.
        1) Plan views contain overall and enlarged plan section view set-up of mechanical, electrical lighting, electrical power, and plumbing plans only.
        2) All details, detail annotation, and references are omitted and not part of the model file.
    f. Other Disciplines: Revit® BIM Model and associated working plan views.

1) Plan views contain overall and enlarged plan section view set-up showing all device locations and general annotation.
2) All details, detail annotation and references are omitted and not part of the model file
3) The Revit All details, detail annotation, and references are omitted and not part of the model file.

2. Revit® BIM Model file provided to Contractor is NOT FOR CONSTRUCTION PURPOSES, but convenience only. This BIM Model will consist of the original model utilized for base bid. It is Contractor responsibility to coordinate all accepted alternated, addenda, RFI, Proposal Request, and any other changes realized during procurement and construction phases. Engineer will not provide up-to-date Contract Documents or update BIM Models to Contractor unless otherwise stated within the Owner/Engineer Agreement.
3. Conformed Construction Documents: If required by Owner/Engineer Agreement, they will be provided in PDF. Conformed Construction Documents are Drawings and Specifications modified to include any Addenda issued before execution of the Contract.
   a. To the extent Conformed Construction Documents are provided to Contractor, the following provisions shall apply:
      1) Conformed Construction Documents, and related information contained therein, are provided for Contractor's convenience only and does not relieve Contractor from Contract Document requirements. Specifically, to the extent that any discrepancy or conflict exist between Issue for Bid documents, including any Addenda issued prior to execution of Contact or Modifications issued after execution of Contact on the one hand, and Conformed Construction Documents on the other; Issue for Bid documents Addenda, and Modifications shall control unless otherwise specified in writing by Engineer.
      2) Contractor shall not use such Drawings, documents, or other data, in whole or in part, for any purpose or project other than this Project, in preparation of Shop Drawings and other submittals.
      3) Contractor acknowledges that such Drawings, documents, or other data obtained prior to use by them for any purpose.
      4) Any Conformed Construction Documents, including any Drawings Specifications, documents, or other data related thereto, are provided "as is" without representation or warranty by Engineer, either expressed or implied.
      5) Contractor acknowledges that Conformed Construction Documents provide by Engineer are as courtesy to Contractor at their specific request, and accordingly, CONTRACTOR HEREBY AGREES TO RELEASE, HOLD HARMLESS, DEFEND, AND INDEMNIFY ENGINEER AND OWNER FROM ANY AND ALL CLAIMS, DEMANDS, OR CAUSES OF ACTION, WHICH CONTRACTOR OR ANY THIRD PARTY MAY HAVE BY REASON OF ANY INJURY OR DAMAGE SUSTAINED BY CONTRACTOR OR THIRD PARTY ARISING OUT OF OR IN ANY WAY RELATED TO THE USE OF SUCH CONFORMED CONSTRUCTION DOCUMENTS.

1.6 REQUEST FOR INFORMATION (RFI)

A. RFI requests from subcontractors or material suppliers will not be considered.
B. Information indicated on RFI shall be complete before submission. If Engineer determines request can be answered with information provided, Engineer will assign RFI tracking number. If Engineer determines request is not an RFI, request will be returned to Contractor electronically and deleted from Engineer's electronic tracking software without assigning an RFI tracking number. A transmittal document returning denied RFI request will be provided with a response indicating action to be taken by Contractor.
C. RFIs may contain more than 1 item when items are related. Otherwise, only 1 item shall be addressed on each RFI request.
D. Allow 7 days for Engineer's response to each RFI.
E. Response to RFI will be issued to Contractor and Owner per Section 01 33 00 "Submittal Procedures."
F. Responses from Engineer are not changes unless issued with a change per Section 01 20 00 "Price and Payment Procedures."

1.7 PROGRESS MEETINGS

A. Schedule and administer monthly meetings throughout Work progress at minimum.
B. Engineer will arrange meetings, prepare agenda with copies for participants, preside at meetings.
C. Attendance Required:
    1. Owner.
    2. Job superintendent.
    3. Major subcontractors.
    4. Suppliers.
    5. Engineer.
    6. As appropriate to agenda topics for each meeting.
D. Agenda:
    1. Review minutes of previous meetings.
    2. Review Work progress.
    3. Field observations, problems, and decisions.
    4. Identify problems which impede planned progress.
    5. Review submittal schedule and status of submittals.
    6. Review off-site fabrication and delivery schedules.
    7. Maintenance of progress schedule.
    8. Corrective measures to regain projected schedules.
    9. Planned progress during succeeding Work period.
    10. Coordinate projected progress.
    11. Maintenance of quality and work standards.
    12. Effect of proposed changes on progress schedule and coordination.
    13. Testing.
    14. Other business relating to Work.
E. Record minutes and distribute copies within 5 days to Engineer, participants, and those affected by decisions made.

1.8 PREINSTALLATION MEETING

A. When required in individual Specifications, convene a preinstallation meeting at site before installing Work.
B. Require attendance of parties directly affecting, or affected by, Work.
C. Notify Engineer 14 days in advance of meeting date.
D. Prepare agenda and preside at meeting.
   1. Review conditions of installation, preparation, and installation procedures.
   2. Review coordination with related work.
E. Record minutes and distribute copies within 5 days after meeting to participants and copy Engineer.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# AIA® Document C106™ – 2013

## *Digital Data Licensing Agreement*

**AGREEMENT** made as of the day of in the year
*(In words, indicate day, month and year.)*

**BETWEEN** the Party transmitting Digital Data ("Transmitting Party"):
*(Name, address and contact information, including electronic addresses)*

Parkhill.

and the Party receiving the Digital Data ("Receiving Party"):
*(Name, address and contact information, including electronic addresses)*

for the following Project:
*(Name and location or address)*

The Transmitting Party and Receiving Party agree as follows.

**TABLE OF ARTICLES**


1 GENERAL PROVISIONS

2 TRANSMISSION OF DIGITAL DATA

3 LICENSE CONDITIONS

4 LICENSING FEE OR OTHER COMPENSATION

5 DIGITAL DATA


**ARTICLE 1 GENERAL PROVISIONS**

**§ 1.1** The purpose of this Agreement is to grant a license from the Transmitting Party to the Receiving Party for the Receiving Party's use of Digital Data on the Project, and to set forth the license terms.

**§ 1.2** This Agreement is the entire and integrated agreement between the parties. Except as specifically set forth herein, this Agreement does not create any other contractual relationship between the parties.

**ADDITIONS AND DELETIONS:**
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

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**§ 1.3** For purposes of this Agreement, the term Digital Data is defined to include only those items identified in Article 5 below.

**§ 1.3.1** Confidential Digital Data is defined as Digital Data containing confidential or business proprietary information that the Transmitting Party designates and clearly marks as "confidential."

## ARTICLE 2 TRANSMISSION OF DIGITAL DATA

**§ 2.1** The Transmitting Party grants to the Receiving Party a nonexclusive limited license to use the Digital Data identified in Article 5 solely and exclusively to perform services for, or construction of, the Project in accordance with the terms and conditions set forth in this Agreement.

**§ 2.2** The transmission of Digital Data constitutes a warranty by the Transmitting Party to the Receiving Party that the Transmitting Party is the copyright owner of the Digital Data, or otherwise has permission to transmit the Digital Data to the Receiving Party for its use on the Project in accordance with the terms and conditions of this Agreement.

**§ 2.3** If the Transmitting Party transmits Confidential Digital Data, the transmission of such Confidential Digital Data constitutes a warranty to the Receiving Party that the Transmitting Party is authorized to transmit the Confidential Digital Data. If the Receiving Party receives Confidential Digital Data, the Receiving Party shall keep the Confidential Digital Data strictly confidential and shall not disclose it to any other person or entity except as set forth in Section 2.3.1.

**§ 2.3.1** The Receiving Party may disclose the Confidential Digital Data as required by law or court order, including a subpoena or other form of compulsory legal process issued by a court or governmental entity. The Receiving Party may also disclose the Confidential Digital Data to its employees, consultants or contractors in order to perform services or work solely and exclusively for the Project, provided those employees, consultants and contractors are subject to the restrictions on the disclosure and use of Confidential Digital Data as set forth in this Agreement.

**§ 2.4** The Transmitting Party retains its rights in the Digital Data. By transmitting the Digital Data, the Transmitting Party does not grant to the Receiving Party an assignment of those rights; nor does the Transmitting Party convey to the Receiving Party any right in the software used to generate the Digital Data.

**§ 2.5** To the fullest extent permitted by law, the Receiving Party shall indemnify and defend the Transmitting Party from and against all claims arising from or related to the Receiving Party's modification to, or unlicensed use of, the Digital Data.

## ARTICLE 3 LICENSE CONDITIONS

The parties agree to the following conditions on the limited license granted in Section 2.1:
*(State below rights or restrictions applicable to the Receiving Party's use of the Digital Data, requirements for data format, transmission method or other conditions on data to be transmitted.)*

This Digital Data is part of the Transmitting Party's Instruments of Service and shall not be used by Receiving Party or anyone else receiving this data through or from the Receiving Party for any purpose other than as a convenience in the preparation of bid submittals, shop drawings, coordination drawings, construction phase submittals, and field layout and staking required by the Owner for the exclusive use of the referenced Project. Any use or reuse by the Receiving Party or by others will be at the Receiving Party's sole risk and without liability or legal exposure to Transmitting Party. The Receiving Party agrees to make no claim and hereby waive, to the fullest extent permitted by law, any claim or cause of action of any nature against Transmitting Party, its officers, directors, employees, or subconsultants that may arise out of or in connection with Receiving Party's use of this Digital Data.
Receiving party or any third party, to the fullest extent permitted by law, shall indemnify and hold harmless the Transmitting Party against all damages, liabilities or costs, including reasonable attorney's fees and defense costs arising out of or resulting from Receiving Party or any third parties use of this Digital Data.

No representation as to the compatibility of this Digital Data with Receiving Party's hardware or software is provided.

This Digital Data is not a Construction Document. Differences may exist between this Digital Data and corresponding two-dimensional hard-copy Construction Document. The Transmitting Party makes no representation regarding the

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accuracy or completeness of the Digital Data the Receiving Party receives. In the event that a conflict arises between the signed/sealed two-dimensional hard-copy Construction Document prepared by Transmitting Party and the Digital Data, the signed/sealed two-dimensional hard-copy Construction Document shall govern. The Receiving Party is responsible for determining if any conflict exists. By the Receiving Party's use of this Digital Data, Receiving Party is not relieved of their duty to fully comply with the Contract Documents, including, and without limitation, the need to check, confirm and coordinate all dimensions and details, field measurements, verify field conditions and coordination of work with that of other contractors for the Project.

Because information presented in the Digital Data can be modified, unintentionally or otherwise, the Transmitting Party reserves the right to remove all indicia of ownership and/or involvement from each Digital Data.

Under no circumstances shall delivery of this Digital Data for use by the Receiving Party be deemed a sale of document ownership by Transmitting Party, and no warranties, either express or implied, of merchantability or fitness for any particular purpose is made. In no event shall the Transmitting Party be liable for any loss of profit or any consequential damages as a result of the Receiving Party's use or reuse of this Digital Data.

The Digital Data file does not necessarily contain all the information that is required to produce finished Construction Documents. Because of this, there may be data within the Digital Data that is missing, incomplete or even contradictory to the information provided in the final two dimensional Construction Documents.

Professional judgment will need to be used by the Receiving Party, along with reasonable expectations and interpretations in order to use the Digital Data for its intended purpose. Should the Transmitting Party provide revised and updated copies of the Digital Data to the Receiving Party throughout the Project, all terms and conditions of this agreement will be applicable and unchanged for all subsequent transmissions of the Digital Data.

## ARTICLE 4 LICENSING FEE OR OTHER COMPENSATION

The Receiving Party agrees to pay the Transmitting Party the following fee for the Receiving Party's use of the Digital Data:
*(State the fee, in dollars, or other method by which the Receiving Party will compensate the Transmitting Party for the Receiving Party's use of the Digital Data.)*

DURING PROCUREMENT PHASE

**.dwg Files**
1-3 Sheets $125.00 per sheet plus applicable tax
4-6 Sheets $500.00 flat fee plus applicable tax
7-9 Sheets $700 flat fee plus applicable tax

**.rvt Files**
Revit Models are $300.00 per model plus applicable tax

UPON AWARD OF CONTRACT:
No service fee will be required for delivery of the electronic file(s).

## ARTICLE 5 DIGITAL DATA

The Parties agree that the following items constitute the Digital Data subject to the license granted in Section 2.1:
*(Identify below, in detail, the information created or stored in digital form the parties intend to be subject to this Agreement.)*

[Revit Models (.rvt files)]
[AutoCAD (.dwg files)]
[Portable Document Format (.pdf)]


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This Agreement is entered into as of the day and year first written above and will terminate upon Substantial Completion of the Project, as that term is defined in AIA Document A201™–2017, General Conditions of the Contract for Construction, unless otherwise agreed by the parties and set forth below.
*(Indicate when this Agreement will terminate, if other than the date of Substantial Completion.)*

None

**PARKHILL**

| | |
|---|---|
| **TRANSMITTING PARTY** *(Signature)* | **RECEIVING PARTY** *(Signature)* |
| *(Printed name and title)* | *(Printed name and title)* |


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# SECTION 01 32 16 - CONSTRUCTION PROGRESS SCHEDULE

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Submittals.
   2. Bar Gantt chart schedules.
   3. Review and evaluation.
   4. Updating schedules.
   5. Distribution.

B. Related Sections:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 SUBMITTALS

A. Post as electronic file to Project website.

B. Submit initial progress schedule for Engineer review within 15 days after established Notice to Proceed date.

C. Schedule Updates:
   1. Submit with each Application for Payment.
   2. Projected and actual percent of completion.
   3. Completion progress by listed activity and subactivity to within 5 working days prior to submittal.
   4. Changes in Work scope and activities modified since submittal.
   5. Delays in submittals or resubmittals, deliveries, or Work.
   6. Revised projections of progress and completion.

D. Narrative Progress Report:
   1. Submit with each Application for Payment.
   2. Summary of Work completed during past period between reports.
   3. Work planned during next period.
   4. Explanation of differences between summary of Work completed and Work planned in previously-submitted report.
   5. Current and anticipated delaying factors and estimated impact on other activities and completion milestones.
   6. Corrective action taken or proposed.

### 1.3 BAR GANTT CHART SCHEDULES

A. Format Bar Gantt chart Schedule to include at least:
   1. Identification and listing, in chronological order, activities reasonably required to complete Work including:
      a. Subcontract Work.
      b. Major equipment design, fabrication, factory testing, and delivery dates including required lead times.
      c. Move-in and other preliminary activities.

d. Equipment and equipment system test and startup activities.
e. Project closeout and cleanup.
f. Work sequences, constraints, and milestones.

2. Listings identified by Specification Section number.
3. Identification of:
   a. Horizontal time frame by year, month, and week.
   b. Duration, early start, and completion for each activity and subactivity.
   c. Critical activities and Project float.
   d. Sub-schedules to further define critical portions of Work.

1.4 REVIEW AND EVALUATION

A. Participate in joint review and evaluation of schedules with Engineer at each Progress Meeting or Application for Payment submittals.
B. Evaluate Project status to determine Work behind and ahead of schedule.
C. After review, revise schedules incorporating results of review and resubmit within 10 days.

1.5 UPDATING SCHEDULES

A. Maintain schedules to record actual start and finish dates of completed activities.
B. Indicate progress of each activity to date of revision with projected completion date of each activity. Update schedules to depict current status of Work.
C. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
D. Upon approval of Change Order, include change in next schedule submittal.
E. Indicate changes required to maintain Date of Substantial Completion.
F. Prepare narrative report to define problem areas, anticipated delays, and impact on schedule. Report corrective action taken or proposed and effect.

1.6 DISTRIBUTION

A. Following joint review, distribute copies to subcontractors, suppliers, Engineer, Owner, and other concerned parties.
B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 33 00 - SUBMITTAL PROCEDURES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Submittal procedures.
   2. Resubmittal requirements.
   3. Proposed products list.
   4. Requirements for complete shop drawings.
   5. Product data.
   6. Samples.
   7. Test reports.
   8. Certificates.
   9. Manufacturer instructions.
   10. Manufacturer field reports.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 SUBMITTAL PROCEDURES

A. Submit to Engineer for review to check for conformance with information given and design concept expressed in Contract Documents.

B. Produce copies and distribute in accordance with this Article.

C. Use Project website to submit record documents as described in Section 01 70 00 "Execution and Closeout Requirements."

D. Transmit each submittal separately with Contractor's standard transmittal letter including Contractor name, address, and phone number. Each Submittal shall contain only one Specification Section.

E. Sequentially number transmittal forms using Section number or Contractor’s sequential numbering system.

F. Identify Project, Contractor, subcontractor, or supplier, pertinent Drawing sheet and detail number(s), and Specification Section number appropriate to Submittal.

G. Apply Contractor's stamp, signed or initialed certifying review, verification of products required, field dimensions, adjacent construction Work, and coordination of information, is per requirements of Work and Contract Documents.

H. Schedule Submittals to expedite Project and deliver to Engineer. Coordinate submission of related items.

I. For each Submittal for review, allow 10 working days excluding delivery time to and from Contractor.

J. Identify variations from Contract Documents and product or system limitations detrimental to successful performance of completed Work. Information, comments, field verifications, responses, or other notations marked on Submittals by Contractor shall be in blue or green colors only.

K. Distribute copies of reviewed Submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

L. Unrequested Submittals will not be recognized or processed.

M. Format:
   1. Submit all Submittals digitally using PDF file extension. Each Submittal shall be a single PDF file including transmittal letter. Multiple files for same Submittal will not be accepted.
   2. Submittals in any other format, including ZIP files, will be rejected.
   3. Hard copies, not accepted.
   4. To ensure each page is legible, PDF pages of Drawings shall be same size/scale as hard copy. Where applicable, provide scale symbols to indicate scale. Illegible submittals will be rejected.
   5. Upload Submittals to Project website.

N. Submittal procedures described herein apply to construction progress schedule, products list, Shop Drawings, product data, samples (actual samples and digital files of same), design data, test reports, certificates, manufacturer's instructions and field reports, erection Drawings, RFIs, and other Submittals submitted to Engineer.

## 1.3 RESUBMITTAL REQUIREMENTS

A. Revise Submittals as required and resubmit to meet requirements specified and noted on submittal reviews.
B. Mark as *Resubmittal*.
C. Reuse original transmittal number and supplement with sequential alphabetical or numeric suffix for each Resubmittal.

## 1.4 PROPOSED PRODUCTS LIST

A. Within 15 days after date of Notice to Proceed, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

## 1.5 REQUIREMENTS FOR COMPLETE SHOP DRAWINGS

A. Printable Image Size: Minimum 8.5 by 11 inches, maximum 30 by 42 inches.
B. Draw details to a noted scale.
C. Draw site plans to same scale indicated on Contract Drawings.
D. Engineer-issued Construction Documents (electronic or paper format) cannot be used in any shape, form, or fashion in creating and developing Shop Drawings, except electronic files containing floor, site plans, or layout plans purchased from Engineer may be used as backgrounds for Contractor, subcontractors, sub-subcontractors, and material suppliers in Shop Drawing process.

## 1.6 PRODUCT DATA

A. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to Project.
B. Include recommendations for application and use, and reference to compliance with specified standards of trade associations and testing agencies.
C. After review, distribute per Article 1.2 "Submittal Procedures," and provide copies for Record Documents described in Section 01 70 00 "Execution and Closeout Requirements."

1.7 SAMPLES

A. Submit samples to illustrate functional and aesthetic characteristics of product with integral parts and attachment devices. Accompany physical sample with color digital image (photo or scanned PDF) of sample. Coordinate sample Submittals for interfacing work.
B. Unless otherwise specified, submit samples of finishes from manufacturer's full range of standard colors, textures, and patterns, for Engineer selection.
C. Where variations in color, pattern, or texture are inherent in material or product, submit multiple samples to indicate approximate range or variations.
D. Include full Project information and identification of manufacturer, model number, type, style and color on each sample.
E. Submit number of samples specified in individual Specifications, one retained by Engineer.
F. Reviewed samples which may remain as part of Work indicated in individual Specifications.
G. Do not use Samples for testing unless specifically stated in individual Specifications.

1.8 TEST REPORTS

A. Submit for Engineer’s knowledge as Contract Administrator or Owner.
B. Submit test reports for information to assess conformance with information given and design concept expressed in Contract Documents.

1.9 CERTIFICATES

A. When specified in individual Specifications, submit certification by manufacturer, installation/application subcontractor, or Contractor, to Engineer.
B. Indicate material or product conforms to/exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
C. Certificates may be recent or previous test results on material or product, but must be acceptable to Engineer.

1.10 MANUFACTURER'S INSTRUCTIONS

A. When specified in individual Specifications, submit manufacturer-printed instructions for delivery, storage, assembly, installation, startup, adjusting, and finishing.
B. Identify conflicts between manufacturers' instructions and Contract Documents.
C. Indicate special procedures, conditions requiring special attention and special environmental criteria required for application or installation.

1.11 MANUFACTURER'S FIELD REPORTS

A. Submit reports for Engineer's benefit as contract administrator or for Owner.
B. Submit report within 30 days of observation to Engineer for information.
C. Submit for information to assess conformance with information given and design concept expressed in Contract Documents.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 40 00 - QUALITY REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Quality control.
   2. Tolerances.
   3. References.
   4. Mockup requirements.
   5. Testing and inspection services.
   6. Manufacturer's field services.

B. Related Sections:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 QUALITY CONTROL

A. Monitor quality control over suppliers, manufacturers, products, services, Site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturer’s instructions. If manufacturer’s instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Perform Work using persons qualified to produce required and specified quality.

D. Products, materials, and equipment may be subject to inspection by Engineer at place of manufacture or fabrication. Such inspections shall not relieve Contractor of complying with requirements of Contract Documents.

E. Supervise performance of Work to ensure Work, whether completed or in progress, will not be subjected to harmful, dangerous, damaging, or otherwise deleterious exposure during construction.

### 1.3 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturer's recommended tolerances and tolerance requirements in reference standards. When tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

### 1.4 REFERENCES

A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard except when more rigid requirements are specified or required by applicable codes.

B. Conform to reference standard by date of issue current as of date of Contract Documents except where specific date is established by code.

C. Obtain copies of standards and maintain onsite when required by product Specifications.

D. When requirements of indicated reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
E. Neither contractual relationships, duties, or responsibilities of parties in Contract, nor those of Engineer shall be altered from Contract Documents by mention or inference in reference documents.

1.5 TESTING AND INSPECTION SERVICES

A. Owner will employ and pay for specified services of an independent firm to perform testing and inspection.
B. Independent firm will perform tests, inspections, and other services specified in individual Specifications and as required by Engineer.
C. Testing, inspections, and source quality control may occur on or off Project Site. Perform off-site testing as required by Engineer.
D. Submit reports to Engineer, indicating observations and results of tests and compliance or noncompliance with Contract Documents.
E. Cooperate with independent firm. Furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor, as requested.
    1. Notify Engineer and independent firm 24 hours before expected time for operations requiring services.
    2. Pay for additional samples and tests required for Contractor use.
F. Employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work per requirements of Contract Documents.
G. Retesting or Re-inspection Required Because of Nonconformance with Specified or Indicated Requirements: Payment for retesting or re-inspection will be charged to Contractor by deducting testing charges from Contract Sum/Price.
H. Independent Firm Responsibilities:
    1. Test samples of mixes submitted by Contractor.
    2. Provide qualified personnel at Site. Cooperate with Engineer and Contractor in performance of services.
    3. Perform indicated sampling and testing of products per specified standards.
    4. Ascertain compliance of materials and mixes with Contract Document requirements.
    5. Promptly notify Engineer and Contractor of observed irregularities or nonconformance of Work or products.
    6. Perform additional tests required by Engineer.
    7. Attend preconstruction and progress meetings.
I. Independent Firm Reports. After each test, promptly submit report to Engineer and Contractor and provide interpretation of test results. Include:
    1. Date issued.
    2. Project title and number.
    3. Name of inspector.
    4. Date and time of sampling or inspection.
    5. Identification of product and Specifications.
    6. Location in Project.
    7. Type of inspection or test.
    8. Date of test.
    9. Results of tests.
    10. Conformance with Contract Documents.

1.6 MANUFACTURER'S FIELD SERVICES

A. When specified in individual Specifications, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, equipment startup, testing, adjusting, and balancing equipment, commissioning, and other as applicable, and initiate instructions when necessary.
B. Submit qualifications of observer to Engineer 30 days before required observations. Observer is subject to Engineer approval.
C. Report observations and Site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturer's written instructions.
D. Refer to Section 01 33 00 "Submittal Procedures," Article 1.11 - Manufacturer's Field Reports.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 43 26 - TESTING LABORATORY SERVICES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Selection and payment.
   2. Contractor submittals.
   3. Laboratory responsibilities.
   4. Laboratory reports.
   5. Limits on testing laboratory authority.
   6. Contractor responsibilities.
   7. Schedule of inspections and tests.

B. Related Sections:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCES

A. ASTM C1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation.

B. ASTM D3666 - Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials.

C. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in Testing/Inspection of Soil and Rock as Used in Engineering Design and Construction.

D. ASTM E329 - Standard Specification for Minimum Requirements for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.

E. ISO/IEC 17025.

### 1.3 SELECTION AND PAYMENT

A. Contractor shall employ and pay for services of an independent testing laboratory to perform specified inspection and testing.

B. Employment of testing laboratory shall in no way relieve Contractor of obligation to perform work per Contract Document requirements.

### 1.4 QUALITY ASSURANCE

A. Comply with requirements of ASTM C1077, D3666, D3740, E329, and ISO/IEC 17025.

B. Laboratory: Authorized to operate in State of Texas.

C. Laboratory Staff: Maintain a full-time, on-staff, registered Engineer to review services.

### 1.5 CONTRACTOR SUBMITTALS

A. Before starting Work, submit testing laboratory name, address, and phone number, as well as names of full-time registered Engineer and responsible officer.

B. Submit copy of laboratory facility inspection report made by Materials Reference Laboratory of National Bureau of Standards during most recent inspection, with remedy memorandum of deficiencies, reported by inspection.

C. Submit Testing Laboratory firm's reports to the distribution list the Engineer provided at preconstruction conference, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
D. Testing and employment of testing agency or laboratory does not relieve Contractor from performing Work to Contract requirements.
E. Retest/reinspect required because of non-conformance to specified requirements using same testing agency or laboratory. Payment for retesting is Contractor responsibility.

1.6 LABORATORY RESPONSIBILITIES

A. Test samples of mixes submitted by Contractor.
B. Provide qualified personnel onsite. Cooperate with Engineer and Contractor in service performance.
C. Perform specified inspection, sampling, and testing of Products per specified standards.
D. Ascertain compliance of materials and mixes with Contract Document requirements.
E. Promptly notify Engineer and Contractor of observed irregularities or non-conformance of Work or Products.
F. Perform additional inspections and tests required by Engineer.
G. Attend pre-construction conferences.

1.7 LABORATORY REPORTS

A. After each inspection and test, promptly distribute reports to distribution list provided by Engineer at preconstruction conference.
B. Include:
    1. Date issued.
    2. Project title and number.
    3. Name of inspector.
    4. Date and time of sampling or inspection.
    5. Identification of product and Specification Section.
    6. Location in Project.
    7. Type of inspection or test.
    8. Date of test.
    9. Results of tests.
    10. Conformance with Contract Documents.
C. When requested by Engineer, provide interpretation of test results.

1.8 LIMITS ON TESTING LABORATORY AUTHORITY

A. Laboratory may not release, revoke, alter, or enlarge Contract Document requirements.
B. Laboratory may not approve or accept any portion of Work.
C. Laboratory may not assume any duties of Contractor.
D. Laboratory has no authority to stop the Work.

1.9 CONTRACTOR RESPONSIBILITIES

A. Deliver to laboratory at designated location, adequate samples of materials proposed to use which require testing along with proposed mix designs.
B. Cooperate with laboratory personnel and provide access to Work and manufacturer facilities.

C. Provide incidental labor and facilities to provide access to Work to test, obtain, and handle samples at site or source of products to test, facilitate tests and inspections, storage, and curing test samples.
D. Notify Engineer and laboratory 24 hours before expected time for operations requiring inspection and testing services.
E. Pay costs of testing laboratory services from Allowance specified in Section 01 20 00 "Price and Payment Procedures" on Engineer approval of invoices.
F. Employ services of a separate qualified testing laboratory, arrange with laboratory, and pay for additional samples and tests required by Contractor beyond specified requirements.

1.10 SCHEDULE OF INSPECTIONS AND TESTS

A. As indicated in individual Specifications.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Temporary Utilities:
a. Electricity.
b. Lighting.
c. Heating.
d. Cooling.
e. Ventilation.
f. Communication services.
g. Water.
h. Sanitary.
2. Construction Facilities:
a. Field offices and sheds.
b. Employee residential occupancy.
c. Vehicular access.
d. Parking.
e. Progress cleaning.
f. Project identification.
g. Traffic regulation.
3. Temporary Controls:
a. Barriers.
b. Fencing.
c. Enclosures.
d. Security.
e. Water control.
f. Dust control.
g. Erosion and sediment control.
h. Noise control.
i. Pest and rodent control.
j. Pollution control.
k. Protect Work.
4. Remove utilities, facilities, and controls.

B. Related Requirements:
1. Other Divisions 01 Specification Sections apply to Work of this Section.

1.2 ELECTRICITY

A. Provide and pay for required power service from existing electrical utility source.

1.3 LIGHTING

A. Do not utilize permanent building lighting during construction. Provide and maintain 1-watt-per-square-foot lighting to exterior staging and storage areas after dark for security purposes.

B. Provide and maintain 0.25-watt-per-square-foot HID lighting to interior work areas after dark for security purposes.
C. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps, as required.
D. Maintain lighting and provide routine repairs.

1.4 VENTILATION

A. Ventilate enclosed areas to assist cure of materials, dissipate humidity, and prevent accumulation of dust, fumes, vapors, or gases.
B. Provide temporary fan units required to maintain clean air for construction operations.

1.5 COMMUNICATION SERVICES

A. At minimum, provide cell phone service for onsite superintendent and home office phone service.

1.6 WATER

A. Provide, maintain, and pay for suitable quality water service required for construction operations. Extend branch piping with outlets located so water is available by hoses with threaded connections.

1.7 SANITARY

A. Provide and maintain required facilities and enclosures.
B. Do not use existing facilities.

1.8 FIELD OFFICES AND SHEDS

A. Office
    1. Construction
        a. Portable/mobile building(s) or buildings constructed with floors raised above ground, securely fixed to foundations with steps and landings at entrance doors.
        b. Structurally-sound, secure, weathertight enclosure to maintain environmental conditions specified.
        c. Maintain during progress of Work.
        d. Temperature Transmission Resistance of Floors, Walls, and Ceilings: Compatible with occupancy and storage requirements.
        e. Exterior Materials: Weather resistant.
        f. Interior Materials in Offices: Sheet-type materials for walls and ceilings, prefinished or painted, resilient floors and bases.
    2. Lighting: Exterior lighting at entrance doors.
    3. Fire Extinguishers: Provide appropriate-type fire extinguisher at each building**.**
    4. Provide separate workstation, similarly equipped and furnished, for Engineer use.
    5. Office Heating, Cooling, and Ventilating: Automatic equipment to maintain comfort conditions.
B. Storage Areas and Sheds
    1. Size storage per Specifications allowing for access and orderly provision for product maintenance and inspection.

2. Fire Extinguishers: Appropriate-type fire extinguisher at each storage area.
3. Interior Materials in Storage Sheds: As required to provide specified environmental conditions for storage of products.
4. Heating and Ventilation: As required to maintain products per Contract Documents.
5. Lighting: As required for maintenance and inspection of products.

C. Prepare: Fill/grade sites for temporary structures sloped for drainage away from buildings.
D. Install office spaces ready for occupancy 15 days after date fixed in Notice to Proceed.
E. Maintenance and Cleaning
1. Weekly janitorial services for offices, periodic cleaning and maintenance for office and storage areas.
2. Maintain approach walks free of mud, water, and snow.
F. Removal: At Work completion remove buildings, foundations, utility services, and debris. Restore areas to original conditions.

1.9 EMPLOYEE RESIDENTIAL OCCUPANCY

A. Not allowed on Owner property.

1.10 VEHICULAR ACCESS

A. Construct temporary all-weather access roads from public thoroughfares to serve construction area, width and load-bearing capacity to accommodate unimpeded traffic for construction purposes.
B. Construct temporary bridges and culverts to span low areas and allow unimpeded drainage.
C. Extend and relocate vehicular access as Work progress requires, providing necessary detours for unimpeded traffic flow.
D. Location as indicated on Drawings**.**
E. Provide unimpeded access for emergency vehicles. Maintain 20-foot-wide driveways with turning space between and around combustible materials.
F. Provide and maintain access to fire hydrants and control valves free of obstructions.
G. Provide means of removing mud from vehicle wheels before entering public streets.
H. Do not use existing onsite roads for construction traffic.
I. Verify with local Authorities Having Jurisdiction regarding temporary fire lanes and related access.

1.11 PARKING

A. Construct temporary gravel-surfaced parking areas to accommodate construction personnel.
B. Locate as approved by Engineer**.**
C. When Site space is not adequate, provide additional off-site parking.

D. Use of existing on-site streets and driveways for construction traffic is not permitted.
E. Using designated areas of existing parking facilities by construction personnel is not permitted.
F. Do not allow heavy or tracked vehicles or construction equipment in parking areas.
G. Do not allow vehicle parking on existing pavement.
H. Designate one parking space for Engineer.
I. Permanent Pavements And Parking Facilities
1. Before Substantial Completion, bases for permanent roads and parking areas may be used for construction traffic.

2. Avoid traffic loading beyond paving design capacity. Tracked vehicles not allowed.
3. Use of permanent parking structures not permitted.

J. Maintenance
1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, mud, snow, and ice**.**
2. Maintain existing and permanent paved areas used for construction. Promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.

K. Removal, Repair
1. Remove temporary materials and construction at Substantial Completion.
2. Remove underground work and compacted materials to 2-foot depth. Fill and grade site as specified.
3. Repair existing facilities damaged by use, to original condition.

L. Mud from Site Vehicles: Provide way to remove mud from wheels before entering streets.

## 1.12 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain a clean and orderly site.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, before enclosing space.

C. Sweep and vacuum interior areas clean before surface finishing and continue cleaning to eliminate dust.

D. Remove waste materials, debris, and rubbish from site and dispose off-site as required to maintain clean site.

## 1.13 PROJECT IDENTIFICATION

A. Project Identification Sign
1. Size: Provide one 8 feet wide by 4 feet high.
2. Materials: 3/4-inch-thick exterior-grade plywood and solid-wood frame.
3. Background Paint: Exterior quality, two coats; sign background of color as selected**.**
4. Lettering: Exterior paint of quality adequate to withstand weathering, fading, and chipping for construction duration, contrasting colors as selected with exhibit lettering by professional sign painter.
5. Lettering: Precut vinyl self-adhesive products, white**.**
6. Design: Design indicated in Drawings**.**
7. Content:
   a. Project title, as indicated on Contract Documents.
   b. Owner’s name and logo.
   c. Names and titles of Engineer and consultants.
   d. Name of Prime Contractor.
   e. Name of major subcontractors.
8. Lettering: Series C of Standard Alphabet for Traffic Control Devices *Manual on Uniform Traffic Control Devices for Streets and Highways*, Federal Highway Administration.

B. Project Informational Signs
1. If required by other documents or Specifications, provide weather-protected signs for site-safety procedures, wage rates, and stormwater pollution prevention plan (SWPPP).
2. Erect sign on or adjacent to field office, if required.

C. Design sign and structure to withstand 90-mile-per-hour wind velocity.
D. Installation
   1. Install Project identification sign within 15 days after date fixed by Notice to Proceed.
   2. Erect at designated location.
   3. Erect supports and framing on secure foundation, rigidly braced and framed to resist wind loadings.
   4. Install sign surface plumb and level with butt joints. Anchor securely.
   5. Paint exposed surfaces of sign supports and framing.
E. No other signs allowed without Owner permission except those required by law.
F. Maintain clean signs and supports. Repair deterioration and damage.
G. Remove signs, framing, supports, and foundations at completion of Project and restore area.

## 1.14 TRAFFIC REGULATION

A. Contractor Responsibilities
   1. Provide Traffic Control Plan (TCP) as necessary for phased construction.
   2. TCP must be signed and sealed by a professional engineer licensed in [Texas].
   3. Designate a responsible individual for TCP replacement and maintenance.
B. Signs, Signals, And Devices
   1. Post- and Wall-Mounted Traffic Control and Informational Signs: As approved by authority having jurisdiction, Texas Manual on Uniform Traffic Control Devices (TMUTCD), and/or TxDOT Standards shown in Plans.
   2. Traffic Control Signals: As approved by local jurisdictions.
   3. Traffic Cones and Drums: As approved by authority having jurisdiction.
   4. Flares and Lights: As approved by authority having jurisdiction.
   5. Flagperson Equipment: As required by authority having jurisdiction.
C. Flagpersons: Provide trained and equipped flagpersons to regulate traffic when construction operations or traffic encroach on public traffic lanes.
D. Flares and Lights: Use during hours of low visibility to delineate traffic lanes and guide traffic.

E. Haul Routes
   1. Consult with authority having jurisdiction, establish public thoroughfares to use for haul routes and site access.
   2. Drawings indicate haul routes designated by authorities having jurisdiction for use of construction traffic.
   3. Confine construction traffic to designated haul routes.
   4. Provide traffic control at critical areas of haul routes to regulate traffic and minimize interference with public traffic.
F. Traffic Signs And Signals
   1. Provide signs at approaches to Site and on-site, crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
   2. Provide, operate, and maintain automatic traffic control signals to direct and maintain orderly flow of traffic in areas under Contractor's control and areas affected by Contractor operations.
   3. Relocate as Work progresses to maintain effective traffic control.
G. Removal
   1. Remove equipment and devices when no longer required.
   2. Repair damage caused by installation.

3. Remove post settings to 2-foot depth.

1.15 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas as well as protect existing facilities and adjacent properties from damage from construction operations**.** Allow for Owner's use of Site.
B. Provide barricades and covered walkways required by authorities having jurisdiction for:
   1. Public rights-of-way.
   2. Public access to existing building.
C. Replace damaged items condition to original condition and protect items designated to remain:
   1. Trees.
   2. Shrubbery.
   3. Lawns.
D. Protect Site improvements including but not limited to pavements, walkways, and drainage structures from damage. Replace damaged site improvements to original condition.
E. Protect non-owned vehicular traffic and stored materials from damage.

1.16 FENCING

A. Construction: Commercial-grade chain-link fence.
B. Provide 6-foot-high fence around construction site equipped with vehicular and pedestrian gates with locks.

1.17 ENCLOSURES

A. Provide temporary insulated weathertight closure of exterior openings to accommodate acceptable working conditions and protection for products, allow temporary heating, cooling, ventilation, and maintenance of required ambient temperatures identified in individual Specifications, and prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.18 SECURITY

A. Security Program
   1. Protect Work andexisting premises from theft, vandalism, and unauthorized entry.
   2. Initiate program at Project mobilization.
   3. Maintain program throughout construction period until Owner occupancy.
B. Entry Control
   1. Restrict entrance of persons and vehicles into Project Site.
   2. Allow entrance only to authorized persons with proper identification.
   3. Maintain log of workers and visitors and make available to Owner on request.

1.19 WATER CONTROL

A. Grade site to drain.
B. Maintain excavations free of water.
C. Provide, operate, and maintain pumping equipment.
D. Protect Site from puddling and running water. Provide water barriers required to protect site from soil erosion.

E. Provide water barriers required to protect existing buildings from puddling, ponding, or other water accumulation that may damage foundations or other subsurface construction.

1.20 DUST CONTROL

A. Execute Work to minimize raising dust from construction operations.
B. Provide positive means to prevent airborne dust from dispersing into atmosphere.

1.21 EROSION AND SEDIMENT CONTROL

A. Plan and execute construction to control surface drainage from cuts, fills, borrow, and waste disposal areas. Prevent erosion and sedimentation.
B. Minimize surface area of bare soil exposed at one time.
C. Provide temporary measures including berms, dikes, drains, and other devices to prevent water flow resulting in erosion.
D. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.
E. Periodically inspect earthwork to detect evidence of erosion and sedimentation. Promptly apply corrective measures.
F. Comply with site Section 01 57 23 "Temporary Stormwater Pollution Control."

1.22 NOISE CONTROL

A. Provide methods, means, and facilities to minimize disruption of Owner operations and activities due to noise produced by construction operations**.**
B. Conduct activities to produce noise that may interfere with Owner operations and activities only when agreed to by Owner**.**

1.23 PEST AND RODENT CONTROL

A. Provide methods, means, and facilities to prevent the following from damaging Work:
   1. Pests.
   2. Insects.
   3. Rodents.

1.24 POLLUTION CONTROL

A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
B. Comply with pollution and environmental control requirements of authorities having jurisdiction.

1.25 PROTECT WORK

A. Protect installed Work and provide special protection where specified in Specifications.
B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to minimize damage.
C. Provide protective coverings at openings in walls, roof, and soffits.
D. Protect finished walkways, drives, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic/activity necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
F. Prohibit traffic from landscaped areas.

1.26 REMOVE UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary above-grade utilities, equipment, facilities, and materials as soon as permanent facilities can be utilized.
B. Remove risers for underground utilities to minimum 2-foot depth and cap.
C. Remove buried equipment, facilities, and materials completely to minimum 2-foot depth and cap.
D. Backfill excavations as specified in other sections and grade site as indicated.
E. Clean and repair damage caused by installation or temporary Work.
F. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.
G. Remove when no longer needed:
    1. Office.
    2. Storage sheds.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 57 23 - TEMPORARY STORMWATER POLLUTION CONTROL

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Contractor responsibilities.
   2. Submittals.
   3. Erosion and sediment controls.

B. Related Requirements:
   1. Local jurisdiction requirements.
   2. Division 01 Specification Sections apply to Work of this Section.

1.2 CONTRACTOR RESPONSIBILITIES

A. Contractor is solely responsible for meeting all TCEQ and EPA requirements for stormwater pollution prevention:
   1. Develop a Stormwater Pollution Prevention Plan (SWPPP) if not provided;
   2. File Notice of Intent (NOI) and include Owner as an "Operator;"
   3. Install and maintain all erosion control measures and best management practices (BMPs);
   4. Perform inspections and prepare reports; and
   5. File Notice of Termination (NOT).

1.3 SUBMITTALS

A. Submit to Engineer, SWPPP, Submittal Procedures, and all other related documentation conforming to Section 01 33 00 "Submittal Procedures."

1.4 EROSION AND SEDIMENT CONTROLS

A. Implement structural measures to divert flows from exposed soils, temporarily store flows, or otherwise limit run-off and discharge of pollutants from exposed areas of site. Timely implement structural practices as specified in SWPPP during construction to minimize erosion and sediment run-off.

B. Stabilized Ingress/Egress:
   1. Provide stabilized access to/from construction site as soon as practical per SWPPP.
   2. Ensure any soil tracked off-site is cleaned from existing roads, alleys, and any adjacent properties as soon as possible. Check for any pollutants (mud, silt, sand, cement, construction materials, etc.) tracked or washed off-site and perform necessary clean-up measures at the end of each work day.

C. Silt Fences/Diversion Berms: Provide as a temporary structural practice to minimize erosion and sediment runoff, as necessary. Properly install silt fences and/or diversion berms to effectively retain sediment immediately after completing each phase of Work where erosion would occur as sheet and rill erosion (clearing and grubbing, excavation, embankment, grading, etc.).

D. Sand/Gravel Bags: Provide as a temporary structural practice to minimize erosion and sediment runoff. Properly place bags to effectively retain sediment immediately after completing each phase of Work (clearing and grubbing, excavation, embankment, grading, etc.) in each independent runoff area (after clearing and grubbing between ridge and drain, place bags as Work progresses, remove/replace/relocate bags as needed for Work to progress in drainage area). Replace sand/gravel bags no longer in good condition, as needed.

E. Site Stabilization:
   1. Minimize surface area of base soil material at one time.
   2. Implement necessary stabilization measures including:
      a. Temporary/permanent seeding/sodding;
      b. Mulching;
      c. Geotextiles;
      d. Vegetative buffer strips;
      e. Paving;
      f. Rock riprap; and/or
      g. Rock-filled gabions.
      h. Inlet protection.
   3. Implement stabilization measures per SWPPP.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 60 00 - PRODUCT REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Products.
   2. Product delivery requirements.
   3. Product storage and handling requirements.

B. Related Sections:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 PRODUCTS

A. At minimum, comply with specified requirements and reference standards.

B. Specified products define standard of quality, type, function, dimension, appearance, and performance required.

C. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise. Confirm manufacturer production capacity can provide sufficient product, on time, to meet Project requirements.

### 1.3 PRODUCT DELIVERY REQUIREMENTS

A. Transport and handle products per manufacturer instructions.

B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.

C. Provide equipment and personnel to handle products. Prevent soiling, disfigurement, or damage.

D. Owner will not assist in offloading or accepting product deliveries.

### 1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

A. Store and protect products per manufacturer instructions.

B. Store products with seals and labels intact and legible.

C. Store sensitive products in weathertight, climate-controlled enclosures in an environment suitable to product.

D. For exterior storage of fabricated products, place products on sloped supports above ground.

E. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

F. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.

G. Provide equipment and personnel to store products. Prevent soiling, disfigurement, or damage.

H. Arrange product storage to permit access for inspection. Periodically inspect to verify products are undamaged and maintained in acceptable condition.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 70 00 - EXECUTION AND CLOSEOUT REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Surveying.
   2. Closeout procedures.
   3. Starting systems.
   4. Demonstration and instructions.
   5. Testing, adjusting, and balancing.
   6. Project record documents.
   7. Operation and maintenance data.
   8. Manual for materials and finishes.
   9. Manual for equipment and systems.
   10. Spare parts and maintenance products.
   11. Product warranties and product bonds.
   12. Examination.
   13. Preparation.
   14. Execution.
   15. Protecting installed construction.
   16. Final cleaning.

B. Related Sections:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 SURVEYING

A. Employ land surveyor registered in State of Texas and acceptable to Engineer.

B. Locate and protect survey control and reference points. Promptly notify Engineer of discrepancies discovered.

C. Control datum for survey is indicated on Drawings.

D. Verify setbacks, easements, and rights of way. Confirm Drawing dimensions and elevations.

E. Provide field engineering services. Establish elevations, lines, and levels using recognized engineering survey practices.

F. Submit copy of Site Drawing signed by land surveyor certifying elevations and locations of Work are per Contract Documents.

G. Maintain complete and accurate log of control and survey Work as Work progresses.

H. Protect survey control points before starting Site Work. Preserve permanent reference points during construction.

I. Promptly report to Engineer loss or destruction of reference point or relocation required because of changes in grades or other reasons.

J. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Engineer.

1.3 CLOSEOUT PROCEDURES

A. Prerequisites to Substantial Completion. Complete following items before requesting Certification of Substantial Completion either for entire Work or portions of Work:
   1. Submit maintenance manuals, Project Record Documents, and other similar final record data per this Section.
   2. Complete facility startup, testing, adjusting, balancing systems and equipment, demonstrations, and instructions to Owner's operating and maintenance personnel as specified per this Section.
   3. Conduct inspection to establish basis for request that Work is substantially complete. Create comprehensive list (initial punch list) indicating items to complete or correct, value of incomplete or nonconforming Work, reason for incompletion, and date of anticipated completion for each item. Include copy of list with request for Certificate of Substantial Completion.
   4. Obtain and submit releases enabling Owner's full, unrestricted use of Project and access to services and utilities. Include certificate of occupancy, operating certificates, and similar releases from authorities having jurisdiction and utility companies.
   5. Deliver tools, spare parts, extra stocks of material, and similar physical items to Owner.
   6. Change locks and transmit keys directly to Owner. Advise Owner's personnel of change-over in security provisions.
   7. Discontinue or change over and remove temporary facilities and services from Project Site along with construction tools, mockups, and similar elements.
   8. Perform final cleaning per this Section.

B. Substantial Completion Inspection:
   1. When Contractor considers Work substantially complete, submit to Engineer and Owner:
      a. Written certificate that Work, or designated portion, is substantially complete.
      b. List of items to complete or correct (initial punch list).
   2. Within 7 days after receipt of request for Substantial Completion, Engineer and Owner will inspect to determine if Work or designated portion is substantially complete.
   3. If Engineer and Owner determine Work is NOT substantially complete:
      a. Engineer and Owner will promptly notify Contractor, in writing, stating reasons for opinion.
      b. Contractor shall remedy deficiencies in Work and send second written request for Substantial Completion to Engineer and Owner.
      c. Engineer and Owner will reinspect Work.
      d. Repeat until Work passes inspection.
   4. When Engineer and Owner finds Work is substantially complete, they will:
      a. Prepare Certificate of Substantial Completion on EJCDC C-625, Certificate of Substantial Completion, accompanied by Contractor's list of items to complete or correct as verified and amended by Engineer and Owner (final punch list).
      b. Submit Certificate to Owner and Contractor for written acceptance of responsibilities assigned in Certificate.
   5. After Work is substantially complete:
      a. Allow Owner occupancy of Project under provisions stated in Certificate of Substantial Completion.

b. Complete Work listed for completion or correction within time stipulated.

C. Prerequisites for Final Completion. Complete following items before requesting final acceptance and final payment:
   1. When Contractor considers Work complete, submit written certification that:
      a. Contract Documents were reviewed.
      b. Work was examined for compliance with Contract Documents.
      c. Work was completed per Contract Documents.
      d. Work is complete and ready for final inspection.
   2. Submit:
      a. Final punch list indicating all items are complete or correct.
      b. Final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations, where required.
      c. Specified warranties, workmanship/maintenance bonds, maintenance agreements, and other similar documents.
      d. Accounting statement for final changes to Contract Sum.
      e. Contractor's Affidavit of Payment of Debts and Claims on Contractor form.
      f. Contractor Affidavit of Release of Liens on Contractor form.
      g. Consent of Surety to Final Payment on Contractor form.
   3. Perform final cleaning for Contractor-soiled areas per this Section.

D. Final Completion Inspection:
   1. Within 7 days after receipt of request for final inspection, Engineer and Owner will inspect to determine if Work or designated portion is complete.
   2. If Engineer and Owner consider Work incomplete or defective:
      a. Engineer and Owner will promptly notify Contractor, in writing, listing incomplete or defective Work.
      b. Contractor shall remedy stated deficiencies and send second written request to Engineer and Owner that Work is complete.
      c. Engineer and Owner will reinspect Work.
      d. Redo and Inspect Deficient Work: Repeated until Work passes inspection.
      e. Engineer and Owner inspection.

## 1.4 STARTING SYSTEMS

A. Coordinate schedule for startup of various equipment and systems.
B. Notify Engineer 7 days before startup of each item.
C. Verify each piece of equipment or system was checked for proper lubrication, drive rotation, belt tension, control sequence, and conditions which may cause damage.
D. Verify tests, meter readings, and electrical characteristics agree with those required by equipment or system manufacturer.
E. Verify wiring and support components for equipment are complete and tested.
F. Execute startup under supervision of manufacturer representative or Contractor personnel per manufacturer's instructions.
G. When specified in individual Specifications, require manufacturer to provide authorized representative who will be present at Site to inspect, check, and approve equipment or system installation before startup and supervise placing equipment or system in operation.
H. Submit a written report per Section 01 33 00 "Submittal Procedures," that equipment or system has properly installed and functioning correctly.

1.5 DEMONSTRATION AND INSTRUCTIONS

A. Demonstrate operation and maintenance (O&M) of products to Owner personnel 2 weeks before date of Substantial Completion.
B. Demonstrate Project equipment by manufacturer's representative who is knowledgeable about Project.
C. Use O&M manuals as basis for instruction. Review contents of manual with Owner personnel in detail to explain all aspects of operation and maintenance.
D. Demonstrate startup, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at agreed time, at equipment location.
E. Prepare and insert additional data in O&M manuals when need for additional data is apparent during instruction.
F. Required instruction time for each item of equipment and system is specified in individual Specifications.

1.6 TESTING, ADJUSTING, AND BALANCING

A. Owner will appoint and employ services of independent firm to perform testing, adjusting, and balancing. Contractor shall pay for services from cash allowance specified in Section 01 20 00 "Price and Payment Procedures."
B. Reports will be submitted by independent firm to Engineer indicating observations and results of tests and indicating compliance or noncompliance with requirements of Contract Documents.

1.7 PROJECT RECORD DOCUMENTS

A. Maintain on-site one set of these record documents and record actual revisions to Work:
    1. Drawings.
    2. Specifications.
    3. Addenda.
    4. Change Orders and other modifications to Contract.
    5. Reviewed Shop Drawings, product data, and Samples.
    6. Manufacturer's instruction for assembly, installation, and adjusting.
B. Ensure entries are complete and accurate enabling future reference by Owner.
C. Store record documents separate from documents used for construction.
D. Record information concurrent with construction progress not less than weekly.
E. Specifications: Legibly mark and record, at each product Section, description of actual products installed including:
    1. Manufacturer name, product model, and number.
    2. Product substitutions or alternates used.
    3. Changes made by Addenda and modifications.
F. Record Drawings. Legibly mark each item to record actual construction.
    1. Include Contract modifications such as Addenda, supplementary instructions, change directives, field orders, minor changes in Work, and change orders.
    2. Include locations of concealed elements of Work.
    3. Identify depth of buried utility lines and provide dimensions showing distances from permanent facility components parallel to utilities.
    4. Dimension ends, corners, and junctions of buried utilities to permanent facility components using triangulation.

5. Identify and locate existing buried or concealed items encountered during Project.
6. Measured depths of foundations in relation to finish floor datum.
7. Measured horizontal and vertical locations of underground utilities and appurtenances referenced to permanent surface improvements.
8. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of Work.
9. Field changes of dimension and detail.
10. Details not on original Drawings.

G. Submit marked-up paper copy documents to Engineer with claim for final Application for Payment.

H. Submit PDF electronic files of marked-up documents to Engineer with claim for final Application for Payment.

## 1.8 OPERATION AND MAINTENANCE DATA

A. Submit in PDF composite electronic indexed file.

B. Submit data bound in 8-1/2- by 11-inch text pages, 3 D-side-ring binders with durable plastic covers.

C. Prepare binder cover with printed *Operation and Maintenance Instructions*, title of Project**,** and subject matter of binder when multiple binders required.

D. Internally subdivide binder contents with permanent page dividers, logically organized as described, with tab titling clearly printed under reinforced laminated plastic tabs.

E. Drawings: Provide with reinforced punched binder tab. Bind in with text. Fold larger Drawings to size of text pages.

F. Contents: Prepare Table of Contents (TOC) for each volume, with each product or system description identified, typed on white paper, in three parts as:

1. Part 1: Directory, listing names, addresses, and phone numbers of Engineer, Contractor, subcontractors, and major equipment suppliers.
2. Part 2: O&M instructions, arranged by system and subdivided by Specification Section. For each category, identify names, addresses, and phone numbers of subcontractors and suppliers. Include:
    a. Significant design criteria.
    b. List of equipment.
    c. Parts list for each component.
    d. Operating instructions.
    e. Maintenance instructions for equipment and systems.
    f. Maintenance instructions for finishes including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
    g. Safety precautions to take when operating and maintaining or working near equipment.
3. Part 3: Project documents and certificates, including:
    a. Shop Drawings and product data.
    b. Certificates.
    c. Originals of warranties.

## 1.9 MANUAL FOR MATERIALS AND FINISHES

A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Engineer will review draft and return one copy with comments.

B. For equipment or component parts of equipment put into service during construction and operated by Owner, submit documents within 10 days after acceptance.

C. Submit one copy of completed volumes 15 days before final inspection. Draft copy reviewed and returned after final inspection, with Engineer comments. Revise content of document sets as required before final submission.
D. Submit two sets of revised final volumes within 10 days after final inspection.
E. Submit in PDF composite electronic indexed file of final manual within 10 days after final inspection.
F. Building Products, Applied Materials, and Finishes: Include product data with catalog number, size, composition, and color and texture designations. Include information for reordering custom-manufactured products.
G. Instructions for Care and Maintenance: Include manufacturer recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
H. Moisture Protection and Weather-Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Include recommendations for inspections, maintenance, and repair.
I. Additional requirements as specified in individual product Specifications.
J. Include listing in TOC for design data with tabbed fly sheet and space for insertion of data.

1.10 MANUAL FOR EQUIPMENT AND SYSTEMS

A. Submit two copies of preliminary draft or proposed formats and outlines of contents before Work. Engineer will review draft and return one copy with comments.
B. For equipment or component parts of equipment put into service during construction and operated by Owner, submit documents within 10 days after acceptance.
C. Submit one copy of completed volumes 15 days before final inspection. Draft copy will be reviewed and returned after final inspection with Engineer comments. Revise content of document sets as required before final submission.
D. Submit two sets of revised final volumes within 10 days after final inspection.
E. Submit in PDF composite electronic indexed file of final manual within 10 days after final inspection.
F. Each System and Item of Equipment: Include description of unit/system and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves with engineering data and tests, complete nomenclature, and model number of replaceable parts.
G. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications by label machine.
H. Include color-coded wiring diagrams as installed.
I. Operating Procedures: Include startup, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shutdown, and emergency instructions. Include summer, winter, and special operating instructions.
J. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
K. Include servicing and lubrication schedule and list of lubricants required.
L. Include manufacturer-printed operation and maintenance instructions.
M. Include sequence of operation by controls manufacturer.
N. Include original manufacturer parts list, illustrations, assembly drawings, and diagrams required for maintenance.
O. Include control diagrams by controls manufacturer as installed.
P. Include Contractor coordination Drawings with color-coded piping diagrams as installed.

Q. Include charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
R. Include list of original manufacturer's spare parts, current prices, and recommended quantities maintained in storage.
S. Include test and balancing reports per Section 01 40 00 "Quality Requirements."
T. Additional requirements as specified in individual product Specifications.
U. Include listing in TOC for design data with tabbed dividers and space for insertion of data.

1.11 SPARE PARTS AND MAINTENANCE PRODUCTS

A. Furnish spare parts, maintenance, and extra products in quantities specified in individual Specifications.
B. Deliver to place in location as directed by Owner. Obtain receipt before final payment.

1.12 PRODUCT WARRANTIES AND PRODUCT BONDS

A. Obtain warranties and bonds executed by responsible subcontractors, suppliers, and manufacturers within 10 days after completion of applicable item of Work.
B. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
C. Verify documents are in proper form, contain full information, and are notarized.
D. Co-execute submittals when required.
E. Include TOC and assemble in three D-side-ring binders with durable plastic cover.
F. Submit before final Application for Payment.
G. Time of Submittals:
    1. For equipment or component parts of equipment put into service during construction with Owner permission, submit documents within 10 days after acceptance.
    2. Make other submittals within 10 days after date of Substantial Completion before final Application for Payment.
    3. For items of Work for which acceptance is delayed beyond Substantial Completion, submit within 10 days after acceptance listing date of acceptance as beginning of warranty or bond period.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verify existing Site conditions and substrate surfaces are acceptable for subsequent Work.
B. Beginning new Work means acceptance of existing conditions.
C. Verify existing substrate can structurally support or attach new Work applied.
D. Examine and verify specific conditions described in individual Specifications.
E. Verify utility services are available with correct characteristics and in correct locations.

3.2 PREPARATION

A. Clean substrate surfaces before applying next material or substance per manufacturer instructions.

B. Seal cracks or openings of substrate before applying next material or substance.
C. Apply manufacturer-required or -recommended substrate primer, sealer, or conditioner before applying new material or substance in contact or bond.

## 3.3 EXECUTION

A. Comply with manufacturer installation instructions performing each step in sequence. Maintain one set of manufacturer installation instructions at Project Site during installation and until completion of construction.
B. When manufacturer installation instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
C. Verify field measurements are as indicated on approved Shop Drawings or as instructed by manufacturer.
D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
    1. Secure Work true-to-line and level and within specified tolerances, or if not specified, industry-recognized tolerances.
    2. Physically separate products in place, provide electrical insulation, or provide protective coatings to prevent galvanic action or corrosion between dissimilar metals.
    3. Exposed Joints: Provide uniform joint width and arrange to obtain best visual effect. Refer questionable visual-effect choices to Engineer for final decision.
E. Allow for expansion of materials and building movement.
F. Climatic Conditions and Project Status: Install each unit of Work under conditions to ensure best possible results in coordination with entire Project.
    1. Isolate each unit of Work from incompatible Work necessary to prevent deterioration.
    2. Coordinate enclosure of Work with required inspections and tests to minimize necessity of uncovering Work for those purposes.
G. Mounting Heights: Where not indicated, mount individual units of Work at industry-recognized standard mounting heights for particular application indicated.
    1. Refer questionable mounting heights choices to Engineer for final decision.
    2. Elements Identified as Accessible to Handicapped: Comply with applicable codes and regulations.
H. Adjust operating products and equipment to ensure smooth and unhindered operation.
I. Clean and perform maintenance on installed Work as frequently as necessary through remainder of construction. Lubricate operable components recommended by manufacturer.

## 3.4 PROTECTING INSTALLED CONSTRUCTION

A. Protect installed Work and provide special protection where specified.
B. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.
C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
D. Use durable sheet materials to protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects.

E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
F. Prohibit traffic from landscaped areas.

3.5 FINAL CLEANING

A. Execute final cleaning before final Project assessment. Employ experienced personnel or professional cleaning firm.
B. Clean interior and exterior glass and surfaces exposed to view. Remove temporary labels, stains, and foreign substances. Polish transparent and glossy surfaces and vacuum carpeted and soft surfaces.
C. Clean equipment and fixtures to sanitary condition with appropriate cleaning materials.
D. Clean filters of operating equipment.
E. Clean debris from roofs, gutters, downspouts, and drainage systems.
F. Clean site. Sweep paved areas and rake landscaped surfaces clean.
G. Remove waste and surplus materials, rubbish, and construction facilities from site.

END OF SECTION

# SECTION 03 10 00 - CONCRETE FORMING AND ACCESSORIES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Form-facing material for cast-in-place concrete.
   2. Shoring, bracing, and anchoring.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 32 13 13 "Concrete Paving" for formwork related to concrete pavement and walks.

### 1.2 DEFINITIONS

A. Form-Facing Material: Temporary structure or mold for the support of concrete while the concrete is setting and gaining sufficient strength to be self-supporting.

B. Formwork: The total system of support of freshly placed concrete including the mold or sheathing that contacts the concrete as well as supporting members, hardware, and necessary bracing.

### 1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.
   1. Review the following:
      a. Special inspection and testing and inspecting agency procedures for field quality control.
      b. Construction, movement, contraction, and isolation joints
      c. Forms and form-removal limitations.
      d. Anchor rod and anchorage device installation tolerances.

### 1.4 ACTION SUBMITTALS

A. Product Data: For each of the following:
   1. Exposed surface form-facing material.
   2. Concealed surface form-facing material.
   3. Form ties.
   4. Form-release agent.

### 1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For testing and inspection agency.

B. Field quality-control reports.

C. Minutes of preinstallation conference.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

A. Concrete Formwork: Design, engineer, erect, shore, brace, and maintain formwork, shores, and reshores in accordance with ACI 301 to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads so that resulting concrete conforms to the required shapes, lines, and dimensions.
   1. Design wood panel forms in accordance with APA's "Concrete Forming Design/Construction Guide."
   2. Design formwork to limit deflection of form-facing material to 1/240 of center-to-center spacing of supports.

### 2.2 FORM-FACING MATERIALS

A. As-Cast Surface Form-Facing Material:
   1. Provide continuous, true, and smooth concrete surfaces.
   2. Furnish in largest practicable sizes to minimize number of joints.
   3. Acceptable Materials: As required to comply with Surface Finish designations specified in Section 03 30 00 "Cast-In-Place Concrete" and as follows:
      a. Plywood, metal, or other approved panel materials.
      b. Exterior-grade plywood panels, suitable for concrete forms, complying with DOC PS 1 and as follows:
         1) APA Structural 1 Plyform, B-B or better; mill oiled and edge sealed.

B. Concealed Surface Form-Facing Material: Lumber, plywood, metal, plastic, or another approved material.
   1. Provide lumber dressed on at least 2 edges and 1 side for tight fit.

### 2.3 RELATED MATERIALS

A. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4-inch by 3/4-inch, minimum.

B. Form-Release Agent: Commercially formulated form-release agent that does not bond with, stain, or adversely affect concrete surfaces and does not impair subsequent treatments of concrete surfaces.
   1. Formulate form-release agent with rust inhibitor for steel form-facing materials.
   2. Form release agent for form liners shall be acceptable to form liner manufacturer.

C. Form Ties: Factory-fabricated, removable or snap-off, glass-fiber-reinforced plastic, or metal form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.
   1. Furnish ties that, when removed, leave holes no larger than 1 inch in diameter in concrete surface.

## PART 3 - EXECUTION

### 3.1 INSTALLATION OF FORMWORK

A. Comply with ACI 301.

B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated within tolerance limits of ACI 117, and to comply with the Surface Finish designations specified in Section 03 30 00 "Cast-In-Place Concrete" for as-cast finishes.

C. Limit concrete surface irregularities as follows:
   1. Surface Finish-2.0: ACI 117 Class B, 1/4-inch.

D. Construct forms tight enough to prevent loss of concrete mortar.
   1. Minimize joints.
   2. Exposed Concrete: Symmetrically align joints in forms.

E. Construct removable forms for easy removal without hammering or prying against concrete surfaces.
   1. Provide crush or wrecking plates where stripping may damage cast-concrete surfaces.
   2. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.
   3. Install keyways, reglets, recesses, and other accessories for easy removal.

F. Do not use rust-stained, steel, form-facing material.

G. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces.
   1. Provide and secure units to support screed strips
   2. Use strike-off templates or compacting-type screeds.

H. Provide temporary openings for cleanouts and inspection ports where interior area of formwork is inaccessible.
   1. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar.
   2. Locate temporary openings in forms at inconspicuous locations.

I. Chamfer exterior corners and edges of permanently exposed concrete.

J. At construction joints, overlap forms onto previously placed concrete not less than 12 inches.

K. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work.
   1. Determine sizes and locations from trades providing such items.
   2. Obtain written approval of Engineer prior to forming openings not indicated on Drawings.

L. Construction and Movement Joints:
   1. Construct joints true to line with faces perpendicular to surface plane of concrete.
   2. Install so strength and appearance of concrete are not impaired at locations indicated or as approved by Architect.
   3. Place joints perpendicular to main reinforcement.
   4. Locate joints for beams, slabs, joists, and girders in the middle third of spans.
      a. Offset joints in girders a minimum distance of twice the beam width from a beam-girder intersection.
   5. Locate horizontal joints in walls and columns at underside of floors, slabs, beams, and girders and at the top of footings or floor slabs.
   6. Space vertical joints in walls as indicated on Drawings.
      a. Locate joints beside piers integral with walls, near corners, and in concealed locations where possible.

M. Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection.

1. Locate ports and openings in bottom of vertical forms, in inconspicuous location, to allow flushing water to drain.
2. Close temporary ports and openings with tight-fitting panels, flush with inside face of form, and neatly fitted so joints will not be apparent in exposed concrete surfaces.

N. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.

O. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.

P. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

## 3.2 INSTALLATION OF EMBEDDED ITEMS

A. Place and secure anchorage devices and other embedded items required for adjoining Work that is attached to or supported by cast-in-place concrete.
1. Use setting Drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
2. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of AISC 303.
3. Clean embedded items immediately prior to concrete placement.

## 3.3 REMOVING AND REUSING FORMS

A. Formwork for sides of beams, walls, columns, and similar parts of the Work that does not support weight of concrete may be removed after cumulatively curing at not less than 50 degrees F for 24 hours after placing concrete. Concrete has to be hard enough to not be damaged by form-removal operations, and curing and protection operations need to be maintained.

B. Clean and repair surfaces of forms to be reused in the Work.
1. Split, frayed, delaminated, or otherwise damaged form-facing material are unacceptable for exposed surfaces.
2. Apply new form-release agent.

C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints.
1. Align and secure joints to avoid offsets.
2. Do not use patched forms for exposed concrete surfaces unless approved by Architect.

## 3.4 FIELD QUALITY CONTROL

A. Special Inspections: Owner will engage a special inspector and qualified testing and inspecting agenc to perform field tests and inspections and prepare test reports.

B. Inspections:
1. Inspect formwork for shape, location, and dimensions of the concrete member being formed.

END OF SECTION

# SECTION 03 20 00 - CONCRETE REINFORCING

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Steel reinforcement bars.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.
   1. Review the following:
      a. Special inspection and testing and inspecting agency procedures for field quality control.
      b. Construction contraction and isolation joints.
      c. Steel-reinforcement installation.

1.3 ACTION SUBMITTALS

A. Product Data: For the following:
   1. Each type of steel reinforcement.
   2. Bar supports.
   3. Mechanical splice couplers.
B. Sustainable Design Submittals.
C. Shop Drawings: Comply with ACI SP-066:
   1. Include placing Drawings that detail fabrication, bending, and placement.
   2. Include bar sizes, lengths, materials, grades, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, location of splices, lengths of lap splices, details of mechanical splice couplers, tie spacing, and supports for concrete reinforcement.
D. Construction Joint Layout: Indicate proposed construction joints required to build the structure.
   1. Location of construction joints is subject to approval of the Architect.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Statements: For testing and inspection agency.
B. Material Test Reports: For the following from a qualified testing agency:
   1. Steel Reinforcement:
      a. For reinforcement to be welded, mill test analysis for chemical composition and carbon equivalent of the steel in accordance with ASTM A706/A706M.
   2. Mechanical splice couplers.
C. Field quality-control reports.
D. Minutes of preinstallation conference.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage.
   1. Store reinforcement to avoid contact with earth.

**PART 2 - PRODUCTS**

2.1 STEEL REINFORCEMENT

A. Reinforcing Bars: ASTM A615, Grade 60, deformed.

2.2 REINFORCEMENT ACCESSORIES

A. Joint Dowel Plate: PNA-Diamond Dowel system.
B. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded-wire reinforcement in place.
   1. Manufacture bar supports from steel wire or plastic in accordance with CRSI's "Manual of Standard Practice."
      a. For concrete surfaces exposed to view, where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire, all-plastic bar supports, or CRSI Class 2 stainless steel bar supports.
C. Mechanical Splice Couplers: ACI 318 Type 2, same material of reinforcing bar being spliced; standard bar lock**.**
D. Steel Tie Wire: ASTM A1064, annealed steel, not less than 0.0508-inch in diameter.
   1. Finish: Plain, ASTM A884, Class A, Type 1.

2.3 FABRICATING REINFORCEMENT

A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

**PART 3 - EXECUTION**

3.1 PREPARATION

A. Protection of In-Place Conditions:
   1. Do not cut or puncture vapor retarder.
   2. Repair damage and reseal vapor retarder before placing concrete.
B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that reduce bond to concrete.

3.2 INSTALLATION OF STEEL REINFORCEMENT

A. Comply with CRSI's "Manual of Standard Practice" for placing and supporting reinforcement.
B. Accurately position, support, and secure reinforcement against displacement.
   1. Locate and support reinforcement with bar supports to maintain minimum concrete cover.
   2. Do not tack weld crossing reinforcing bars.

C. Preserve clearance between bars of not less than 1 inch, not less than one bar diameter, or not less than 1-1/3-times size of large aggregate, whichever is greater.
D. Provide concrete coverage in accordance with ACI 318.
E. Set wire ties with ends directed into concrete not toward exposed concrete surfaces.
F. Splices: Lap splices as indicated on Drawings.
   1. Bars indicated to be continuous and all vertical bars shall be lapped not less than 36 bar diameters at splices or 24 inches, whichever is greater.
   2. Stagger splices in accordance with ACI 318.
   3. Mechanical Splice Couplers: Install in accordance with manufacturer's instructions.

3.3 JOINTS

A. Construction Joints: Install so strength and appearance of concrete are not impaired at locations indicated or as approved by Architect.
   1. Place joints perpendicular to main reinforcement.
   2. Do not continue reinforcement across construction joints unless otherwise indicated.
B. Doweled Joints: Install dowel plates and support assemblies at joints where indicated. Lubricate or asphalt coat one-half of plates length to prevent concrete bonding to one side of joint.

3.4 INSTALLATION TOLERANCES

A. Comply with ACI 117.

3.5 FIELD QUALITY CONTROL

A. Special Inspections: Owner will engage a special inspector and qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.
B. Inspections:
   1. Steel-reinforcement placement.
   2. Steel-reinforcement mechanical splice couplers.

END OF SECTION

# SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Cast-in-place concrete, including concrete materials, mixture design, placement procedures, and finishes.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 03 10 00 "Concrete Forming and Accessories" for form-facing materials.
   3. Section 03 20 00 "Concrete Reinforcing" for steel reinforcing bars.
   4. Section 31 20 00 "Earth Moving" for drainage fill under slabs-on-ground.
   5. Section 32 13 13 "Concrete Paving" for concrete pavement and walks.

### 1.2 DEFINITIONS

A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash; materials subject to compliance with requirements.

B. Water/Cement Ratio (w/cm): The ratio by weight of water to cementitious materials.

### 1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.
   1. Require representatives of each entity directly concerned with cast-in-place concrete to attend including the following:
      a. Contractor's superintendent.
      b. Independent testing agency responsible for concrete design mixtures.
      c. Ready-mix concrete manufacturer.
      d. Concrete Subcontractor.
   2. Review the following:
      a. Special inspection and testing and inspecting agency procedures for field quality control.
      b. Construction joints, control joints, isolation joints, and joint-filler strips.
      c. Semirigid joint fillers.
      d. Vapor-retarder installation.
      e. Anchor rod and anchorage device installation tolerances.
      f. Cold and hot weather concreting procedures.
      g. Concrete finishes and finishing.
      h. Curing procedures.
      i. Forms and form-removal limitations.
      j. Methods for achieving specified floor and slab flatness and levelness.
      k. Floor and slab flatness and levelness measurements.
      l. Concrete repair procedures.
      m. Concrete protection.

1.4 ACTION SUBMITTALS

A. Product Data: For each of the following.
   1. Portland cement.
   2. Fly ash.
   3. Blended hydraulic cement.
   4. Aggregates.
   5. Admixtures:
      a. Include limitations of use including restrictions on cementitious materials, supplementary cementitious materials, air entrainment, aggregates, temperature at time of concrete placement, relative humidity at time of concrete placement, curing conditions, and use of other admixtures.
   6. Vapor retarders.
   7. Curing materials.
      a. Include documentation from color pigment manufacturer, indicating that proposed methods of curing are recommended by color pigment manufacturer.
   8. Joint fillers.
   9. Repair materials.

B. Sustainable Design Submittals:

C. Design Mixtures: For each concrete mixture, include the following:
   1. Mixture identification.
   2. Minimum 28-day compressive strength.
   3. Durability exposure class.
   4. Maximum w/cm.
   5. Slump limit.
   6. Air content.
   7. Nominal maximum aggregate size.
   8. Indicate amounts of mixing water to be withheld for later addition at Project site if permitted.
   9. Intended placement method.
   10. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

D. Shop Drawings:
   1. Construction Joint Layout: Indicate proposed construction joints required to construct the structure.
      a. Location of construction joints is subject to approval of the Engineer.

E. Concrete Schedule: For each location of each Class of concrete indicated in "Concrete Mixtures" Article including the following:
   1. Concrete Class designation.
   2. Location within Project.
   3. Exposure Class designation.
   4. Formed Surface Finish designation and final finish.
   5. Final finish for floors.
   6. Curing process.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For the following:
   1. Installer: Include copies of applicable ACI certificates.

2. Ready-mixed concrete manufacturer.
3. Testing agency: Include copies of applicable ACI certificates.

B. Material Certificates: For each of the following signed by manufacturers:
1. Cementitious materials.
2. Admixtures.
3. Curing compounds.
4. Bonding agents.
5. Adhesives.
6. Vapor retarders.
7. Semirigid joint filler.
8. Joint-filler strips.
9. Repair materials.

C. Material Test Reports: For the following from a qualified testing agency:
1. Portland cement.
2. Fly ash.
3. Blended hydraulic cement.
4. Aggregates.
5. Admixtures.

D. Floor surface flatness and levelness measurements report indicating compliance with specified tolerances.

E. Research Reports:
1. For concrete admixtures in accordance with ICC's Acceptance Criteria AC198.

F. Preconstruction Test Reports: For each mix design.

G. Field quality-control reports.

H. Minutes of preinstallation conference.

## 1.6 QUALITY ASSURANCE

A. Installer Qualifications: A qualified installer who employs Project personnel qualified as an ACI-certified Flatwork Technician and Finisher and a supervisor who is a certified ACI Flatwork Concrete Finisher/Technician or an ACI Concrete Flatwork Technician.
1. Post-Installed Concrete Anchors Installers: ACI-certified Adhesive Anchor Installer.

B. Ready-Mixed Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C94 requirements for production facilities and equipment.
1. Manufacturer certified in accordance with NRMCA's "Certification of Ready Mixed Concrete Production Facilities."

## 1.7 PRECONSTRUCTION TESTING

A. Preconstruction Testing Service: Engage a qualified testing agency to perform preconstruction testing on each concrete mixture.
1. Include the following information in each test report:
a. Admixture dosage rates.
b. Slump.
c. Air content.
d. Seven-day compressive strength.
e. 28-day compressive strength.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Comply with ASTM C94 and ACI 301.

1.9 FIELD CONDITIONS

A. Cold-Weather Placement: Comply with ACI 301 and ACI 306.1 and as follows.
   1. Protect concrete Work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
   2. When average high and low temperature is expected to fall below 40 degrees F for 3 successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
   3. Do not use frozen materials or materials containing ice or snow.
   4. Do not place concrete in contact with surfaces less than 35 degrees F, other than reinforcing steel.
   5. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.

B. Hot-Weather Placement: Comply with ACI 301 and ACI 305.1, and as follows:
   1. Maintain concrete temperature at time of discharge to not exceed 95 degrees F.
   2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

**PART 2 - PRODUCTS**

2.1 CONCRETE, GENERAL

A. ACI Publications: Comply with ACI 301 unless modified by requirements in the Contract Documents.

2.2 CONCRETE MATERIALS

A. Cementitious Materials:
   1. Portland Cement: ASTM C150, gray.
   2. Fly Ash: ASTM C618, Class F.
   3. Blended Hydraulic Cement: ASTM C595, Type IS, portland blast-furnace slag Type IL, portland-limestone cement.

B. Normal-Weight Aggregates: ASTM C33, Class 3S coarse aggregate or better, graded. Provide aggregates from a single source.
   1. Alkali-Silica Reaction: Comply with one of the following:
      a. Expansion Result of Aggregate: Not more than 0.04-percent at one-year when tested in accordance with ASTM C1293.
      b. Expansion Results of Aggregate and Cementitious Materials in Combination: Not more than 0.10-percent at an age of 16 days when tested in accordance with ASTM C1567.
      c. Alkali Content in Concrete: Not more than pounds per cubic yardfour for moderately reactive aggregate or pounds per cubic yardthree for highly reactive aggregate, when tested in accordance with ASTM C1293 and categorized in accordance with ASTM C1778, based on alkali content being calculated in accordance with ACI 301.

2. Maximum Coarse-Aggregate Size: One-and-three-fourth inch nominal.
3. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.

C. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures that do not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
1. Water-Reducing Admixture: ASTM C494, Type A.
2. High-Range, Water-Reducing Admixture: ASTM C494, Type F.

## 2.3 VAPOR RETARDERS

A. Sheet Vapor Retarder, Class A: ASTM E1745, Class A, except with maximum water-vapor permeance of not less than 20-mils--thick. Include manufacturer's recommended adhesive or pressure-sensitive tape.

## 2.4 CURING MATERIALS

A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 ouncees per square yard when dry.
C. Moisture-Retaining Cover: ASTM C171, polyethylene film burlap-polyethylene sheet.
1. Color:
a. Ambient Temperature Below 50 degrees F: Black.
b. Ambient Temperature between 50 degrees F and 85 degrees F: Any color.
c. Ambient Temperature Above 85 degrees F: White.
D. Water: Potable or complying with ASTM C1602.
E. Clear, Solvent-Borne, Membrane-Forming, Curing and Sealing Compound: ASTM C1315, Type 1, Class A.

## 2.5 RELATED MATERIALS

A. Expansion- and Isolation-Joint-Filler Strips: ASTM D1751, asphalt-saturated cellulosic fiber.
B. Semirigid Joint Filler: Two-component, semirigid, 100 percent solids, epoxy resin with a Type A shore durometer hardness of 80 in accordance with ASTM D2240.
C. Bonding Agent: ASTM C1059, Type II, nonredispersible, acrylic emulsion or styrene butadiene.
D. Epoxy Bonding Adhesive: ASTM C881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class suitable for application temperature and of grade and class to suit requirements, and as follows:
1. Types IV and V, load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.

## 2.6 CONCRETE MIXTURES, GENERAL

A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, in accordance with ACI 301.
1. Use a qualified testing agency for preparing and reporting proposed mixture designs, based on laboratory trial mixtures.
B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:

1. Fly Ash: 25 percent by mass.

C. Admixtures: Use admixtures in accordance with manufacturer's written instructions.
   1. Use water-reducing, high-range water-reducing, or plasticizing admixture in concrete, as required, for placement and workability.
   2. Use water-reducing admixture in pumped concreteand concrete with a w/cm below 0.50.

2.7 CONCRETE MIXTURES

A. Class A: Normal-weight concrete used for footings, grade beams, and tie beams.
   1. Exposure Class: ACI 318 F2.
   2. Minimum Compressive Strength: 4,000 psi at 28 days.
   3. Maximum w/cm: .50.
   4. Slump Limit: 4 inches, plus or minus 1 inch.

B. Class B: Normal-weight concrete used for foundation walls.
   1. Exposure Class: ACI 318.
   2. Minimum Compressive Strength: 4,000 psi at 28 days.
   3. Maximum w/cm: 0.50.
   4. Slump Limit: 6 inches, plus or minus 1 inch for concrete with verified slump of 3 inches plus or minus 1 inch before adding high-range water-reducing admixture or plasticizing admixture at Project Site.

C. Class C: Normal-weight concrete used for interior slabs-on-ground.
   1. Exposure Class: ACI 318 F0.
   2. Minimum Compressive Strength: 4,000 psi at 28 days.
   3. Maximum w/cm: 0.45.
   4. Minimum Cementitious Materials Content: Based on the requirements of ACI 301 for floors and relatee to nominal maximu aggregate sizes.
   5. Slump Limit: 6 inches, plus or minus 1 inch for concrete with verified slump of 3 inches plus or minus 1 inch before adding high-range water-reducing admixture or plasticizing admixture at Project site.
   6. Air Content:
      a. Do not use an air-entraining admixture or allow total air content to exceed 3 percent for concrete used in trowel-finished floors.

2.8 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete in accordance with ASTM C94 and ASTM C1116, and furnish batch ticket information.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verification of Conditions:
   1. Before placing concrete, verify that installation of concrete forms, accessories, and reinforcement, and embedded items is complete and that required inspections have been performed.
   2. Do not proceed until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Provide reasonable auxiliary services to accommodate field testing and inspections, acceptable to testing agency, including the following:
   1. Daily access to the Work.
   2. Incidental labor and facilities necessary to facilitate tests and inspections.
   3. Secure space for storage, initial curing, and field curing of test samples, including source of water and continuous electrical power at Project site during site curing period for test samples.
   4. Security and protection for test samples and for testing and inspection equipment at Project site.

3.3 INSTALLATION OF EMBEDDED ITEMS

A. Place and secure anchorage devices and other embedded items required for adjoining Work that is attached to or supported by cast-in-place concrete.
   1. Use setting Drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
   2. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of ANSI/AISC 303.

3.4 INSTALLATION OF VAPOR RETARDER

A. Sheet Vapor Retarders: Place, protect, and repair sheet vapor retarder in accordance with ASTM E1643 and manufacturer's written instructions.
   1. Install vapor retarder with longest dimension parallel with direction of concrete pour.
   2. Face laps away from exposed direction of concrete pour.
   3. Lap vapor retarder Down footings and grade beams not less than 6 inches, sealing vapor retarder to concrete.
   4. Lap joints 6 inches and seal with manufacturer's recommended tape.
   5. Terminate vapor retarder at the top of floor slabs and grade beams sealing entire perimeter to floor slabs, grade beams, or foundation walls.
   6. Seal penetrations in accordance with vapor retarder manufacturer's instructions.
   7. Protect vapor retarder during placement of reinforcement and concrete.
      a. Repair damaged areas by patching with vapor retarder material, overlapping damages area by 6 inches on all sides, and sealing to vapor retarder.

3.5 JOINTS

A. Construct joints true to line, with faces perpendicular to surface plane of concrete.
B. Construction Joints: Coordinate with floor slab pattern and concrete placement sequence.
   1. Install so strength and appearance of concrete are not impaired, at locations indicated on Drawings or as approved by Engineer.
   2. Place joints perpendicular to main reinforcement.
      a. Cut reinforcement across construction joints unless otherwise indicated.
   3. Locate joints for beams, slabs, joists, and girders at third points of spans. Offset joints in girders a minimum distance of twice the beam width from a beam-girder intersection.

4. Locate horizontal joints in walls and columns at underside of floors, slabs, beams, and girders and at the top of footings or floor slabs.
5. Space vertical joints in walls as indicated on Drawings. Unless otherwise indicated on Drawings, locate vertical joints beside piers integral with walls, near corners, and in concealed locations where possible.
6. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

C. Control Joints in Slabs-on-Ground: Form weakened-plane control joints, sectioning concrete into areas as indicated. Construct control joints for a depth equal to at least one-fourth of concrete thickness as follows:
1. Sawed Joints: Form control joints with "early entry" proccess equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch-wide joints into concrete when cutting action does not tear, abrade, or otherwise damage surface and before concrete develops random cracks.

D. Isolation Joints in Slabs-on-Ground: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
1. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface unless otherwise indicated on Drawings.
2. Terminate full-width joint-filler strips not less than 1/2-inch or more than 1-inch below finished concrete surface, where joint sealants are indicated.
3. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, lace or clip sections together.

E. Doweled Joints:
1. Install dowel plates and support assemblies at joints where indicated on Drawings.
2. Lubricate or asphalt coat one-half of dowel plates length to prevent concrete bonding to one side of joint.

F. Dowel Plates: Install dowel plates at joints where indicated on Drawings.

## 3.6 CONCRETE PLACEMENT

A. Before placing concrete, verify that installation of formwork, reinforcement, embedded items, and vapor retarder is complete and that required inspections are completed.
1. Immediately prior to concrete placement, inspect vapor retarder for damage and deficient installation, and repair defective areas.
2. Provide continuous inspection of vapor retarder during concrete placement and make necessary repairs to damaged areas as Work progresses.

B. Notify Engineer and testing and inspection agencies 24 hours prior to commencement of concrete placement.

C. Do not add water to concrete during delivery, at Project site, but not to exceed the amount indicated on the concrete delivery ticket.
1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.

D. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301, but not to exceed the amount indicated on the concrete delivery ticket.
1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.

E. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete is placed on concrete that has hardened enough to cause seams or planes of weakness.

1. If a section cannot be placed continuously, provide construction joints as indicated.
2. Deposit concrete to avoid segregation.
3. Deposit concrete in horizontal layers of depth not to exceed formwork design pressures and in a manner to avoid inclined construction joints.
4. Consolidate placed concrete with mechanical vibrating equipment in accordance with ACI 301.
    a. Do not use vibrators to transport concrete inside forms.
    b. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches into preceding layer.
    c. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity.
    d. At each insertion, limit duration of vibration to time necessary to consolidate concrete, and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.

F. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.
1. Do not place concrete floors and slabs in a checkerboard sequence.
2. Consolidate concrete during placement operations, so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
3. Maintain reinforcement in position on chairs during concrete placement.
4. Screed slab surfaces with a straightedge and strike off to correct elevations.
5. Level concrete, cut high areas, and fill low areas.
6. Slope surfaces uniformly to drains where required.
7. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface.
8. Do not further disturb slab surfaces before starting finishing operations.

## 3.7 FINISHING FORMED SURFACES

A. As-Cast Surface Finishes:
1. ACI 301 Surface Finish SF-2.0: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams.
    a. Patch voids larger than 3/4-inch wide or 1/2-inch deep.
    b. Remove projections larger than 1/4-inch.
    c. Patch tie holes.
    d. Surface Tolerance: ACI 117 Class B.
    e. Locations: Apply to concrete surfaces exposed to public view.

B. Related Unformed Surfaces:
1. At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a color and texture matching adjacent formed surfaces.
2. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

## 3.8 FINISHING FLOORS AND SLABS

A. Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.

B. Float Finish:

1. When bleedwater sheen has disappeared and concrete surface has stiffened sufficiently to permit operation of specific float apparatus, consolidate concrete surface with power-driven floats or by hand floating if area is small or inaccessible to power-driven floats.
2. Repeat float passes and restraightening until surface is left with a uniform, smooth, granular texture and complies with ACI 117 tolerances for conventional concrete.
3. Apply float finish to surfaces to receive trowel finish.

C. Trowel Finish:
1. After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel.
2. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance.
3. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
4. Do not add water to concrete surface.
5. Do not apply hard-troweled finish to concrete, which has a total air content greater than 3 percent.
6. Apply a trowel finish to surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic tile.
7. Finish surfaces to the following tolerances, in accordance with ASTM E1155, for a randomly trafficked floor surface:
   a. Slabs on Ground:
      1) Finish and measure surface so gap at any point between concrete surface and an unleveled, freestanding, 10-feet long straightedge resting on two high spots and placed anywhere on the surface does not exceed 1/4-inch and also no more than 1/16-inch in 2 feet.

D. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and locations indicated on Drawings.
1. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route.
2. Coordinate required final finish with Engineer before application.

## 3.9 INSTALLATION OF MISCELLANEOUS CONCRETE ITEMS

A. Filling In:
1. Fill in holes and openings left in concrete structures after Work of other trades is in place unless otherwise indicated.
2. Mix, place, and cure concrete, as specified, to blend with in-place construction.
3. Provide other miscellaneous concrete filling indicated or required to complete the Work.

B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.

C. Equipment Bases and Foundations:
1. Coordinate sizes and locations of concrete bases with actual equipment provided.
2. Construct concrete bases 6 inches high unless otherwise indicated on Drawings, and extend base not less than 6 inches in each direction beyond the maximum dimensions of supported equipment unless otherwise indicated on Drawings, or unless required for seismic anchor support.
3. Minimum Compressive Strength: 4,000 psi 3,000 psi at 28 days.

4. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch centers around the full perimeter of concrete base.
5. For supported equipment, install epoxy-coated anchor bolts that extend through concrete base and anchor into structural concrete substrate.
6. Prior to pouring concrete, place and secure anchorage devices.
    a. Use setting Drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
    b. Cast anchor-bolt insert into bases.
    c. Install anchor bolts to elevations required for proper attachment to supported equipment.

## 3.10 CONCRETE CURING

A. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
    1. Comply with ACI 301 and ACI 306.1 for cold weather protection during curing.
    2. Comply with ACI 301 and ACI 305.1 for hot-weather protection during curing.

B. Curing Unformed Surfaces: Comply with ACI 308.1 as follows:
    1. Begin curing immediately after finishing concrete.
    2. Interior Concrete Floors:
        a. Floors to Receive Floor Coverings Specified in Other Sections: Contractor has option of the following:
            1) Absorptive Cover: As soon as concrete has sufficient set to permit application without marring concrete surface, install prewetted absorptive cover over entire area of floor.
                a) Lap edges and ends of absorptive cover not less than 12 inches.
                b) Maintain absorptive cover water saturated, and in place, for duration of curing period, but not less than 7 days.
            2) Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive.
                a) Immediately repair any holes or tears during curing period, using cover material and waterproof tape.
                b) Cure for not less than 7 days.
        b. Floors to Receive Curing Compound after moist cure:
            1) Apply uniformly in continuous operation by power spray or roller in accordance with manufacturer's written instructions.
            2) Recoat areas subjected to heavy rainfall within three hours after initial application.
            3) Maintain continuity of coating, and repair damage during curing period.
            4) Removal: After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound manufacturer unless manufacturer certifies curing compound does not interfere with bonding of floor covering used on Project.

3.11 TOLERANCES

A. Conform to ACI 117.

3.12 JOINT FILLING

A. Prepare, clean, and install joint filler in accordance with manufacturer's written instructions.
   1. Defer joint filling until concrete has aged at least one month.
   2. Do not fill joints until construction traffic has permanently ceased.
B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joints clean and dry.
C. Install semirigid joint filler full depth in saw-cut joints and at least 2 inches deep in formed joints.
D. Overfill joint, and trim joint filler flush with top of joint after hardening.

3.13 CONCRETE SURFACE REPAIRS

A. Defective Concrete:
   1. Repair and patch defective areas when approved by Engineer.
   2. Remove and replace concrete that cannot be repaired and patched to Engineer's approval.
B. Patching Mortar: Mix dry-pack patching mortar, consisting of one part portland cement to two and one-half parts fine aggregate passing a No. 16 sieve, using only enough water for handling and placing.
C. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.
   1. Immediately after form removal, cut out honeycombs, rock pockets, and voids more than 1/2-inch in any dimension to solid concrete.
      a. Limit cut depth to 3/4-inch.
      b. Make edges of cuts perpendicular to concrete surface.
      c. Clean, dampen with water, and brush-coat holes and voids with bonding agent.
      d. Fill and compact with patching mortar before bonding agent has dried.
      e. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.
   2. Repair defects on surfaces exposed to view by blending white portland cement and standard portland cement, so that, when dry, patching mortar matches surrounding color.
      a. Patch a test area at inconspicuous locations to verify mixture and color match before proceeding with patching.
      b. Compact mortar in place and strike off slightly higher than surrounding surface.
   3. Repair defects on concealed formed surfaces that will affect concrete's durability and structural performance as determined by Engineer.
D. Repairing Unformed Surfaces:
   1. Test unformed surfaces, such as floors and slabs, for finish, and verify surface tolerances specified for each surface.
      a. Correct low and high areas.

b. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.

2. Repair finished surfaces containing surface defects, including spalls, popouts, honeycombs, rock pockets, crazing, and cracks in excess of 0.01-inch wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
3. After concrete has cured at least 14 days, correct high areas by grinding.
4. Correct localized low areas during, or immediately after, completing surface-finishing operations by cutting out low areas and replacing with patching mortar.
   a. Finish repaired areas to blend into adjacent concrete.
5. Repair defective areas, except random cracks and single holes 1-inch or less in diameter, by cutting out and replacing with fresh concrete.
   a. Remove defective areas with clean, square cuts, and expose steel reinforcement with at least a 3/4-inch clearance all around.
   b. Dampen concrete surfaces in contact with patching concrete and apply bonding agent.
   c. Mix patching concrete of same materials and mixture as original concrete, except without coarse aggregate.
   d. Place, compact, and finish to blend with adjacent finished concrete.
   e. Cure in same manner as adjacent concrete.
6. Repair random cracks and single holes 1-inch or less in diameter with patching mortar.
   a. Groove top of cracks and cut out holes to sound concrete, and clean off dust, dirt, and loose particles.
   b. Dampen cleaned concrete surfaces and apply bonding agent.
   c. Place patching mortar before bonding agent has dried.
   d. Compact patching mortar and finish to match adjacent concrete.
   e. Keep patched area continuously moist for at least 72 hours.

E. Perform structural repairs of concrete, subject to Engineer's approval, using epoxy adhesive and patching mortar.

F. Repair materials and installation not specified above may be used, subject to Engineer's approval.

## 3.14 FIELD QUALITY CONTROL

A. Special Inspections: Owner will engage a special inspector to perform field tests and inspections and prepare testing and inspection reports.

B. Testing Agency: Owner will engage a qualified testing and inspecting agency to perform tests and inspections and to submit reports.
   1. Testing agency shall be responsible for providing curing container for composite samples on Site and verifying that field-cured composite samples are cured in accordance with ASTM C31.
   2. Testing agency shall immediately report to Engineer, Contractor, and concrete manufacturer any failure of Work to comply with Contract Documents.
   3. Testing agency shall report results of tests and inspections, in writing, to Owner, Engineer, Contractor, and concrete manufacturer within 48 hours of inspections and tests.
      a. Test reports shall include reporting requirements of ASTM C31, ASTM C39, and ACI 301, including the following as applicable to each test and inspection:

1) Project name.
2) Name of testing agency.
3) Names and certification numbers of field and laboratory technicians performing inspections and testing.
4) Name of concrete manufacturer.
5) Date and time of inspection, sampling, and field testing.
6) Date and time of concrete placement.
7) Location in Work of concrete represented by samples.
8) Date and time sample was obtained.
9) Truck and batch ticket numbers.
10) Design compressive strength at 28 days.
11) Concrete mixture designation, proportions, and materials.
12) Field test results.
13) Information on storage and curing of samples before testing, including curing method and maximum and minimum temperatures during initial curing period.
14) Type of fracture and compressive break strengths at 7 days and 28 days.

C. Batch Tickets: For each load delivered, submit three copies of batch delivery ticket to testing agency, indicating quantity, mix identification, admixtures, design strength, aggregate size, design air content, design slump at time of batching, and amount of water that can be added at Project site.

D. Inspections:
1. Headed bolts and studs.
2. Verification of use of required design mixture.
3. Concrete placement, including conveying and depositing.
4. Curing procedures and maintenance of curing temperature.
5. Batch Plant Inspections: On a random basis, as determined by Engineer.

E. Concrete Tests: Testing of composite samples of fresh concrete obtained in accordance with ASTM C 172 shall be performed in accordance with the following requirements:
1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cubic yards, but less than 25 cubic yards, plus one set for each additional 50 cubic yards or fraction thereof.
a. When frequency of testing provides fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
2. Slump: ASTM C143:
a. One test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture.
b. Perform additional tests when concrete consistency appears to change.
3. Concrete Temperature: ASTM C1064/C1064M:
a. One test hourly when air temperature is 40 degrees F and below or 80 degrees F and above, and one test for each composite sample.
4. Compression Test Specimens: ASTM C31/C31M:
a. Cast and laboratory cure two sets of four 6-inch by 12-inch or 4-inch by 8-inch cylinder specimens for each composite sample.
5. Compressive-Strength Tests: ASTM C39.
a. Test one set of two laboratory-cured specimens at 7 days and one set of two specimens at 28 days.

b. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.

6. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength, and no compressive-strength test value falls below specified compressive strength by more than 500 psi if specified compressive strength is 5,000 psi, or no compressive strength test value is less than 10 percent of specified compressive strength if specified compressive strength is greater than 5,000 psi.
7. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Engineer but will not be used as sole basis for approval or rejection of concrete.
8. Additional Tests:
   a. Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed byEngineer.
   b. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C42 or by other methods as directed by Engineer.
      1) Acceptance criteria for concrete strength shall be in accordance with ACI 301 section 1.6.6.3.
9. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional Work with specified requirements.
10. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.

F. Measure floor and slab flatness and levelness in accordance with ASTM E1155 within 24 hours of completion of floor finishing and promptly report test results to Engineer.

## 3.15 PROTECTION

A. Protect concrete surfaces as follows:
1. Protect from petroleum stains.
2. Diaper hydraulic equipment used over concrete surfaces.
3. Prohibit vehicles from interior concrete slabs.
4. Prohibit use of pipe-cutting machinery over concrete surfaces.
5. Prohibit placement of steel items on concrete surfaces.
6. Prohibit use of acids or acidic detergents over concrete surfaces.

END OF SECTION

# SECTION 05 40 00 - COLD-FORMED METAL FRAMING

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Load-bearing fwall framing.
   2. Formed joist framing.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 05 50 00 "Metal Fabrications" for miscellaneous steel shapes, masonry shelf angles, and connections used with cold-formed metal framing.
   3. Section 09 22 16 "Non-Structural Metal Framing."

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For the following:
   1. Cold-formed steel framing materials.
   2. Load-bearing wall framing.
   3. Verical deflection clips.
   4. Double deflection track.
   5. Floor joist framing.
   6. Post-installed anchors.
   7. Power-actuated anchors.
   8. Sill sealer gasket.

B. Shop Drawings:
   1. Indicate layout, spacings, sizes, thicknesses, and type of cold-formedsteel framing; fabrication; and and fastening and anchorage details, includingmechanical fasteners,.
   2. Indicate reinforcing channels, opening framing, supplemental framing, strapping, bracing, bridges, splices, accessories, connection details, and attachment to adjoining work..

C. Delegated Design Submittals: For cold-formed steel framing.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For testing agency.

B. Welding certificates.

C. Product Certificates: For each type of code-compliance certification for studs and tracks.

D. Product Test Reports: For each listed product, for tests performed by manufacturer and witnessed by a qualified testing agency.
   1. Steel sheet.
   2. Expansion anchors.

E. Power-actuated anchors.

1. Mechanical fasteners.
2. Vertical deflection clips.
3. Miscellaneous structural clips and accessories.

F. Research Reports:
1. For nonstandard cold-formed steel framing post-installed anchors and power-actuated fasteners from ICC-ES.
2. For sill sealer gasket/termite barrier, showing compliance with ICC-ES AC380.

1.5 QUALITY ASSURANCE

A. Testing Agency Qualifications: Qualified according to ASTM E329 for testing indicated.
B. Product Tests: Mill certificates or data from a qualified independent testing agency indicating steel sheet complies with requirements, including base-metal thickness, yield strength, tensile strength, total elongation, chemical requirements, and metallic-coating thickness.
C. Code-Compliance Certification of Studs and Tracks: Provide documentation that framing members are certified according to the product-certification program of the Certified Steel Stud Association or the Steel Stud Manufacturers Association.
D. Welding Qualifications: Qualify procedures and personnel according to the following:
1. AWS D1.1, "Structural Welding Code - Steel."
2. AWS D1.3, "Structural Welding Code- Sheet Steel."

1.6 DELIVERY, STORAGE, AND HANDLING

A. Protect and store cold-formed steel framing from corrosion, moisture staining, deformation, and other damage during delivery, storage, and handling as required in AISI S202,

**PART 2 - PRODUCTS**

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified Professional Engineer, as defined in Section 01 40 00 "Quality Requirements," to design cold-formed steel framing.
B. Structural Performance: Provide cold-fomed steel framing capable of withstanding design loads within limits and under conditions indicated.
1. Design Loads: As indicated on Drawings.
2. Deflection Limits: Design framing systems to withstand design loads without deflections greater than the following:
a. Exterior Load-Bearing Wall Framing: Horizontal deflection of 1/360 of the wall height.
b. Interior Load-Bearing Wall Framing: Horizontal defletion of 1/360 of the wall height under a horizontal load of 5 pound force per square feet.
c. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/240 for total loads of the span.
3. Design framing sysems to provide for movement of framing members loccated outside the insulated building envelope without damage or over-stressing, sheathing failure, connection failure, undue strain on fasteners and anchors, or other detrimental effects when subject to a maximum ambient temperature change of 120 degrees F.

4. Cold-Formed Steel Framing Standards: Unless more stringent requirements are indicated, framing complies with AISI S100 and ASTM C955.

## 2.2 COLD-FORMED STEEL FRAMING MATERIALS

A. Framing Members, General: Comply with ASTM C955 for conditions indicated.
B. Steel Sheet: ASTM A1003, Structural Grade, Type H, metallic coated, of grade and coating designation as follows:
   1. Grade: As required by structural performance.
   2. Coating: G60.
C. Sheet Sheet for Vertical Deflection Clips: ATM A653, structural steel, zinc coated, of grade and coating as follows:
   1. Grade: As required by structural performance.
   2. Coating: G60.

## 2.3 LOAD-BEARING WALL FRAMING

A. Steel Studs: Manufacturer's standard C-shaped steel studs, off web depths indicated, punched, with stiffened flanges, and as follows:
   1. Minimum Base-Metal Thickness: 0.0538-inch.
   2. Flange Width: 1-5/8 inches.
B. Steel Track: Manufacturer's standard U-shaped steel tracck, of web depths indicated, unpunched, with straight flanges, and as follows:
   1. Minimum Base-Metal Thickness: Matching steel studs.
   2. Flange Width: 1-1/4 inches.
C. Steel Box or Back-to-Back Headers: Manufacturer's standard C-shapes used to form header beams, of web depths indicated, unpunched, with stiffened flanges, and as follows:
   1. Minimum Base-Metal Thickness: 0.0538-inch.
   2. Flange Width: 1-5/8 inches.
D. Single Deflection Track: Manufacturer's single, deep-leg, U-shaped steel track; unpunched, with unstiffened flanges, of web depth to contain studs while allowing free vertical movement, with flanges designed to support horizontal loads and transfer them to the primary structure, and as follows.
   1. Minimum Base-Metal Thickness: 0.0538-inch.
   2. Flange Width: 1 inch plus the design gap.
E. Double Deflection Tracks: Manufacturer's double, deep leg, U-shaped steel tracks, consisting of nested inner and outer track, unpunced, with unstiffened flanges.
   1. Out Track: Of web depth to allow free vertical movement of inner track, with flanges designedto support horizonal loads and transfer them to the primary structure, and as follows:
      a. Minimum Base-Metal Thickness: 0.0538-inch.
      b. Flange Width: 1 inch.
   2. Inner Track: Of web depth indicated and as follows:
      a. Minimum Base-Metal Thickness: 0.0538-inch.
      b. Flange Width: Dimension equal to sum of outer deflection track flange width plus 1 inch.

## 2.4 INTERIOR NON-LOAD-BEARING WALL FRAMING

A. Steel Studes: manufacturer's standard C-shaped steel studs, of web depths indicated, punchh, with stiffened flanges, and as follows:

1. Minimum Base-Metal Thickness: 0,0538-inch.
2. Flange Width: 1-5/8 inches.

B. Steel Track: Manufacturer's standard U-shaped steel track, of web depths indicated, unpunched, with unstiffened flanges, and as follows:
   1. Minimum Base-Metal Thickness: Matching steel studs.
   2. Flange Width: 1-1/4 inches.

C. Single Deflection Track: Manufacturer's single, deep-leg, U-shaped steel track, unpunched, with unstiffened flanges, of web depth to contain studs while allowing free vertical movement, with flanges designed to support horizontal loads and transfer them to primary structure, and as follows:
   1. Minimum Base-Metal Thickness: 0.0538-inch.
   2. Flange Width: 1 inch plus the design gap.

D. Double Deflection Track: Manufacturer's double, deep-leg, U-shaped steel tracks, consisting of nesed inner and outher tracks; unpunchhhed, with unstiffened flanges.
   1. Out Track: Of web depth to allow free vertical movement of inner track, with flanges designedto support horizonal loads and transfer them to the primary structure, and as follows:
      a. Minimum Base-Metal Thickness: 0.0538-inch.
      b. Flange Width: 1 inch plus the design gap.
   2. Inner Track: Of web depth indicated and as follows:
      a. Minimum Base-Metal Thickness: 0.0538-inch.
      b. Flange Width: Dimension equal to sum of outer deflection track flange width plus 1 inch.

## 2.5 FLOOR JOIST FRAMING

A. Steel Joists: Manufacturer's standard C-shaped steel joists, of web depth indicated, unpunched, wih stiffened flanges, and as follows:
   1. Minimum Base-Metal Thickness: 0.0677-inch.
   2. Flange Width: 2 inches minimum

B. Steel Joist Track: Manufacturer's standard U-shaped steel joist track, of web depths indicated, unpunches, wth unstiffened flanges, and as follows:
      a. Maching Matching steel joists.
      b. Flange Width: As required.

## 2.6 FRAMING ACCESSORIES

A. Fabricate steel-framing accessories from ASTM A1003, Structural Grade, Type H, metallic-coated steel sheet, of same grade, and coating designation used for framing members.

B. Provide accessories of manufacturer's standard thickness and configuration, unless otherwise indicated, as follows:
   1. Supplementary framing.
   2. Bracing, bridging, and solid blocking.
   3. Web stiffeners.
   4. Anchor clips.
   5. End clips.
   6. Foundaton clips
   7. Gusset plates.
   8. Stud kickers and knee braces.
   9. Joist hangers and end closures.

10. Hole-reinforcing plates.
11. Backer plates.

## 2.7 ANCHORS, CLIPS, AND FASTENERS

A. Steel Shapes and Clip: ASTM A36, zinc coated by hot-dip process according to ASTM A123.

B. Anchor Bolts: ASTM F1554, Grade 36, threaded carbon-steel hex-headed bolts, carbon-steel nuts, and flat, hardened-steel washers: zinc coated by hot-dip proccess according to ASTM 153, Class C.

C. Post-Installed Anchors: Fastener systems with bolts of same basic metal as fastened metal, if visible, unless otherwise indicted; with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC01, ICC-ES AC193, ICC-ES AC58, OR ICC-ES AC308 as appropriate for the substrate.
   1. Uses: Securing cold-formed steel framing to structure.
   2. Type: Adhesive anchor.
   3. Material for Interior Locations: Carbon-steel components zinc plated to comply with ASTM B633 OR ASTM F1941, Class Fe/Zn 5, unless otherwise indicated.

D. Power-Actuated Anchors: Fastener systems with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

E. Mechanical Fasteners: ASTM C1513, corrosion-resistant-coated, self-drilling, self-tapping, steel drill screwes.
   1. Head Type: Low-profile head beneath sheathing, manufacturer's standard elsewhere.

F. Welding Electrodes: Comply with AWS standards.

## 2.8 MISCELLANEOUS MATERIALS

A. Galvanizing Repair Paint; ATM A780, MIL-P-21035B, OR SSPC-Paint 20.

B. Nonmetallic, Nonshrink Grout: Factory-packaged, nonmetallic, noncorrosive, nonstaining grout, complying with ASTM C1107, and with a fluid consisteny and 30-minute working time.

C. Shims: Load-bearing, high-density, multimonomer, nonleaching plastic; or cold-formed steel of same grade and metallic coating as framing members supported by shims.

D. Sill Sealer Gasket/Termite Barrier: Minimum 68-mil nominal thickness, self-adhering sheet consisting of 64 mils of rubberized asphalt laminated on one side to a 4-mil-thick, polyethylene-film reinforcement, and with release liner on adhesive side.
   1. Physical Properites:
      a. Peel Adhesion: 17.0 pounds per inch of width when tested in accordance with ASTM D412.
      b. Low-Temperature Flexibility: Pass at minus 25 degrees F when tested in accordance with ASTM D146.
      c. Water Vapor Permeance: 0.05 permeance maximum when tested in accordance with ASTM E96, Method B.
      d. Resistance to Termite Penetration: Comply with ICC-ES AC380.

2.9 FABRICATION

A. Fabricate cold-formed steel framing and accessories plumb, square, and true to line, and with connections securely fastened, according to referenced AISI's specifications and standards, manufacturer's written instructions, and requirements in this Section,
   1. Fabricate framing assemblies using jigs or templates.
   2. Cut framing members by sawing or shearing; do not torch out.
   3. Fasten cold-formed steel framing members by welding, screw fastening, clinch fastening, pneumatic pin fastening, or riveting as standard with fabricator. Wire tying of framing members is not permitted.
      a. Comply with AW D1.3 requirements and procedures for welding, appearance and qualty of welds, and methods used in correcting welding work.
      b. Locate mechanical fasteners and install according to Shop Drawings, with screws penetrating jointed members by no fewer than three exposed screw threads.
   4. Fasten other materials to cold-formed steel framing by welding, bolting, pneumatic pin fastening, or screw fastening according to Shop Drawings.

B. Reinforce, stiffen, and brace framing assemblies to withstand handling, delivery, and erection stresses. Lift fabricated assemblies by means that prevent damage or permanent distortion.

C. Tolerances: Fabricte assemblies level ,plumb, and true to line at a maximum allowable variation of 1/8-inch in 10 feet and as follows:
   1. Spacing: Space individual framing members no more than plus or minus 1/8-inch from plan location. Cumulative errors are not to exceed minimum fastening requiremens of sheathing or other finishing materials.
   2. Squareness: Fabricate each cold-formed steel framing assembly to a maximum out-of-square tolerance of 1/8-inch.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine substrates, areas, conditions and butting structural framing for compliance with requirements for installation tolerances and other conditions affecting performance of Work.

B. Proceed with installation onlty after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Install load-bearing shims or grout between the underside of load-bearing wall bottom track and the top of foundation wall or slab at locations with a gap larger than 1/4-inch to ensure a uniform bearing surface on supporting concrete or masonry construction.

B. Install sill sealer gasket/termite barrier in accordance with manufacturer's written instructions at the underside of wall bottom track or rim track and at the top of foundation wall or slab at stud or joist locations.

## 3.3 INSTALLATION, GENERAL

A. Cold-formed steel framing may be shop or field fabricated for installation or it may be field assembled.
B. Install cold-formed steel framing according to AISI200, AISI S202, and manufacturer's written instructions unless more stringent requirements are indicated.
C. Install shop- or field-fabricted, cold-formed framing and securely anchor to supporting structure.
    1. Screw bolt, or weld wall panels at horizontal and vertical junctures to produce flush, even, true-to-line joints with maximum variation in plane and true position between fabricated panels not exceeding 1/16-inch.
D. Install cold-fired steel framing and accessories plumb, square, and true-to-line, and with connections securely fastened.
    1. Cut framing members by sawing or shearing; do not torch cut.
    2. Fasten, cold-formed steel framing members by welding, screw fastening, clinch fastening, or riveting. Wire tying of framing members is not permitted.
        a. Comply with AWS D1.3 requirements and procedures for welding, appearance and quality of welds, and methods used in correcting welding Work.
        b. Locate mechanical fastener, install according to Shop Drawings, and comply with requirements for spacing, edge distances, and screw penetration.
E. Install temporary bracing and supports to secure framing and support loads equal to those for which structure was designed. Maintain braces and supports in place, undisturbed, until entire integrated supporting structure has been completed and permanent connections to framing are secured.
F. Install insulation specified in Section 07 21 00 "Thermal Insulation," in framing-assembly members, such as headers, sills, boxed joists, and multiple studs at openings, that are inaccessible on completion of framing work
G. Fasten hole-reinforcing plate over web penetrations that exceed size of manufacturer's approved or standard punched openings.

## 3.4 INSTALLATION OF LOAD-BEARING WALL FRAMING

A. Install continuous top and bottom tracks sized to match studs. Align tracks accurately and securely anchor at corners and ends and at spacings as follows:
    1. Anchor Spacing: As shown on Shop Drawings.
B. Squarely seat studs against top and bottom tracks with gap not exceeding 1/8-inch between the end of wall-framing member and the web of track.
    1. Fasten both flanges of studs to top and bottom tracks.
    2. Space studs as follows:
        a. Stud Spacing: 16 inches.

C. Set studs plumb, except as needed for diagonal bracing or required for nonplumb walls or warped surfaces and similar configurations.
D. Align studs vertically where floor framing interrupts wall-framing continuity. Where studs cannot be aligned, continuously reinforce track to transfer loads.
E. Align floor and roof framing over studs according to AISI S200, Section C1. Where framing cannot be aligned, continuously reinforce track to transfer loads.
F. Anchor studs abutting structural columns or walls, including masonry walls, to supporting structure.

G. Install headers over wall openings wider than stud spacing. Locate headers above openings. Fabricate headers of compound shapes indicated or required to transfer load to supporting studs, complete with clip-angle connectors, web stiffeners, or gusset plates.
   1. Frame wall openings with not less than a double stud at each jamb of frame. Fasten jamb members together to uniformly distribute loads.
   2. Install tracks and jack studs above and below wall openings. Anchor tracks to jamb studs with clip angles or by welding, and space jack studs same as full-height wall studs.

H. Install supplementary framing, blocking, and bracing in stud framing indicted to support fixtures, equipment, services, casework, heavy trim, furnishings, and similar work requiring attachment to framing.
   1. If type of supplementary support is not indicated comply with stud manufacturer's written recommendations and industry standards in each case considering weight or load resulting from item supported.

I. Install horizontal bridging in stud system, spaced vertically 48 inches. Fasten at each stud intersection.
   1. Channel Bridging: Cold-rolled steel channel, welded or mechanically fastened to webs of punched studs with a minimum of two screws into each flange of the clip angle for framing members up to 6 inches deep.
   2. Strap Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and stud-track solid blocking of width and thickness to match studs. Fasten flat straps to stud flanges and secure solid blocking to stud webs or flanges.
   3. Bar Bridging: Proprietary bridging bars installed according to manufacturer's written instructions.

J. Install miscellaneous framing and connections, including supplementary framing, web stiffeners, clip angles, continuous angles, anchors, and fasteners to provide a complete and stable wall-framing system.

## 3.5 INSTALLATION OF EXTERIOR NON-LOAD BEARING WALL FRAMING

A. Install continuous tracks sized to match studs. Align tracks accurately and securely anchor to supporting structure.

B. Fasten both flanges of studs to top and bottom tracks unless otherwise indicated. Space studs as follows:
   1. Stud Spacing: 16 inches.

C. Set studs plumb except as needed for diagonal bracing or required for non-plumb walls or warped surfaces and similar requirements.

D. Isolate non-load-bearing steel framing from building structure to prevent transfer to vertical loads while providing lateral support.
   1. Install single deep-leg deflection tracks and anchor to building structure.
   2. Install double deep-leg deflection tracks and anchor out track to building structure.

E. Install horizontal bridging in wall studs, spaced vertically in rows indicated on Shop Drawings but no more than 48 inches apart. Fasten at each stud intersection.
   1. Channel Bridging: Cold-rolled steel channel, welded or mechanically fastened, to webs of punched studs.
   2. Strap Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and stud-track solid blocking of width and thickness to match studs. Fasten flat straps to stud flanges and secure solid blocking to stud webs or flanges.
   3. Bar Bridging: Proprietary bridging bars installed according to manufacturer's written instructions.

F. Top Bridging for Single Deflection Track: Install row of horizontal bridging within 12 inches of single deflection track. Install a combination of bridging and stud or stud-track solid blocking of width and thickness matching studs, secured to stud webs or flanges.
   1. Install solid bocking at 96-inch centers.
G. Install miscellaneous framing and connections, including stud kickers, web stiffeners, clip angles, continuous angles, anchors, and fasteners to provide a complete and stable wall-framing system.

## 3.6 INSTALLATION OF INTERIOR NON-LOAD BEARING WALL FRAMING

A. Install continuous tracks sized to match studs. Align tracks accurately and securely anchor to supporting structure.
B. Fasten both flanges of studs to top and bottom tracks unless otherwise indicated. Space studs as follows:
   1. Stud Spacing: 16 inches.
C. Set studs plumb, except as needed for diagonal bracing or required for non-plumb walls or warped surfaces and similar requirements.
D. Isolate non-load bearing steel framing from building structure to prevent transfer of vertical loads while providing lateral support.
   1. Install single deep-leg deflection tracks and anchor to building structure.
   2. Install double deep-leg deflection tracks and anchor outer track to buiding structure.
E. Install horizontal bridging in wall studs, spaced vertically in rows indicaed on Shop Drawings but not more than 48 inches apart. Fasten at each stud intersection.
   1. Channel Bridging: Cold-rolled steel channel, welded or mechanically fastened, to webs of punched studs.
   2. Strap Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and stud-track solid blocking of width and thickness to match studs. Fasten flat straps to stud flanges and secure solid blocking to stud webs or flanges.
   3. Bar Bridging: Proprietary bridging bars installed according to manufacturer's written instructions.
F. Top Bridging for Single Deflection Track: Install row of horizontal bridging within 12 inches of single deflection track. Install a combination of bridging and stud or stud-track solid blocking of width and thickness matching studs, secured to stud webs or flanges.
   1. Install solid blocking at 96-inch centers.
G. Install miscellaneous framing and connections, including stud kickers, web stiffeners, clip angles, continuous angles, anchors, and fasteners to provide a complete and stable wall-framing system.

## 3.7 INSTALLATION OF JOIST FRAMING

A. Install continuous tracks sized to match studs. Align tracks accurately and securely anchor to supporting structure.
B. Fasten both flanges of studs to top and bottom tracks unless otherwise indicated. Space studs as follows:
   1. Stud Spacing: 16 inches.
C. Set studs plumb except as needed for diagonal bracing or required for non-plumb walls or warped surfaces and similar requirements.
D. Isolate non-load-bearing steel framing from building structure to prevent transfer to vertical loads while providing lateral support.
   1. Install single deep-leg deflection tracks and anchor to building structure.

2. Install double deep-leg deflection tracks and anchor out track to building structure.

E. Install horizontal bridging in wall studs, spaced vertically in rows indicated on Shop Drawings but no more than 48 inches apart. Fasten at each stud intersection.
   1. Channel Bridging: Cold-rolled steel channel, welded or mechanically fastened, to webs of punched studs.
   2. Strap Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and stud-track solid blocking of width and thickness to match studs. Fasten flat straps to stud flanges and secure solid blocking to stud webs or flanges.
   3. Bar Bridging: Proprietary bridging bars installed according to manufacturer's written instructions.

F. Top Bridging for Single Deflection Track: Install row of horizontal bridging within 12 inches of single deflection track. Install a combination of bridging and stud or stud-track solid blocking of width and thickness matching studs, secured to stud webs or flanges.
   1. Install solid bocking at 96-inch centers.

G. Install miscellaneous framing and connections, including stud kickers, web stiffeners, clip angles, continuous angles, anchors, and fasteners to provide a complete and stable wall-framing system.

## 3.8 INSTALLATION OF INTERIOR NON-LOAD BEARING WALL FRAMING

A. Install perimeter joist track sized to match joists. Align and securely anchor or fasten track to supporting structure at corners, ends, and spacing indicated on Shop Drawings.

B. Install joists bearing on supporting frame, level, straight, and plumb; adjust to final position, brace, and reinforce. Fasten joists to both flanges of joist track.
   1. Install joists over supporting frame with a minimm end bearing of 1-1/2 inches.
   2. reinforce ends and bearing oints of joists with web stiffeners, end clips, joist hangers, steel clip angles, or steel-stud sections.

C. Space joists not more than 2 inches from abutting walls and as follows:
   1. Joist Spacing: 24 inches.

D. Frame openings with built-up joist headers, consisting of jost and joist track or anothr combinaton of connected joists if indicated.

E. Install joist reinforcement at interior supports with single, short length of joist secction located directly over interior support, with lapped joists of equal length to joist reinforcement.
   1. Install web stiffeners to transfer axial loads of walls above.

F. Install bridging intervals indicaed on Shop Drawings.. Fasten at each joist intersection as follows:
   1. Joist-Track Bridging: Joist-track solid bocking of width and thickness indicated, secured to joist webs.
   2. Combination Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and joist-track solid blocking of width and thickness indicated. Fasten flat straps to bottom flange and secure solid blocking to joist webs.

G. Secure joists to load-bearing interior walls to prevent lateral movement of bottom flange.

H. Install miscellaneous joist framing and connections, including web stiffeners, closure pieces, clip angles, continuous angles, hold-down angles, anchors, and fasteners to provide a complete and stable joist-framing assembly.

3.9 INSTALLATION TOLERANCES

A. Install cold-formed steel framing level plumb and true-to-line to a maximum allowable tolerance variation of 1/8-inch in 10 feet and as follows:
   1. Space individual framing members no more than plus or minus 1/8-inch from plan location. Cumulative errors are not to exceed minimum fastening requirements of sheathing or other finishing materials.

3.10 REPAIR

A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on fabricated and installed cold-formed steel framing with galvanized repair paint according to ASTM A780 and manufacturer's written instructions.

3.11 FIELD QUALITY CONTROL

A. Testing: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspectons and prpare test reports.
B. Field and shop welds will be subject to testing and inspecting.
C. Testing ageny will report test results promptly and in writing to Contractor and Architect.
D. Cold-formed steel framing will be considered defective if it does not pass tests and inspections.
E. Additional testing and inspecting, at Contractor's expense, will be performed tto determine compliance of replaced or additional work with specified requirements.

3.12 PROTECTION

A. Provide final protection and maintain conditions, in a manner acceptale to manufacturer and Installer, that ensure that cold-formed steel framing is without damage or deterioration at time of Substantial Completion.

END OF SECTION

## SECTION 06 16 13 – INSULATING SHEATHING (ZIP SYSTEM R SHEATHING)

### PART 1 - GENERAL

1.1 SUMMARY

A. Section includes insulating wall sheathing with integral water-resistive barrier and air barrier.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. American Society of Mechanical Engineers (ASME): www.asme.org.
   1. ASME B18.6.1 - Wood Screws (Inch Series).
B. ASTM International (ASTM): www.astm.org.
   1. ASTM A153 - Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
   2. ASTM C1289 - Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
   3. ASTM D779 - Test Method for Water Resistance of Paper, Paperboard, and Other Sheet Materials by the Dry Indicator Method.
   4. ASTM D1621 - Test Method for Compressive Properties Of Rigid Cellular Plastics.
   5. ASTM D2247 - Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.
   6. ASTM E96 - Test Methods for Water Vapor Transmission of Materials.
   7. ASTM E331 - Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
   8. ASTM E2357 - Test Method for Determining Air Leakage of Air Barrier Assemblies.
   9. ASTM F1667 - Specification for Driven Fasteners: Nails, Spikes, and Staples.
   10. ASTM G154 - Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials.
C. US Department of Commerce (DOC): http://gsi.nist.gov/global/index.cfm/L1-5/l2-44/A-355.
   1. DOC PS 2 - Performance Standard for Wood-Based Structural Panels.
D. International Code Council (ICC): www.iccsafe.org.
   1. ICC IBC - International Building Code.
   2. ICC IRC - International Residential Code for One and Two-Family Dwellings.
E. ICC Evaluation Service, Inc. (ICC-ES): www.icc-es.org.
   1. ICC-ES AC12 - Acceptance Criteria For Foam Plastic Insulation.
   2. ICC-ES AC38 - Acceptance Criteria for Water-Resistive Barriers.
   3. ICC-ES AC116 - Acceptance Criteria for Nails and Spikes.
   4. ICC-ES AC148 - Acceptance Criteria For Flexible Flashing Materials.
   5. ICC-ES AC201 - Acceptance Criteria for Staples.
   6. ICC-ES AC269 - Acceptance Criteria for Racking Shear Evaluation of Proprietary Sheathing Materials attached to Light-Frame Wall Construction or Code-Complying Sheathing Attached to Light-Framed Walls with Proprietary Fasteners.

7. ICC-ES AC310 - Acceptance Criteria for Water-Resistive Membranes Factory-bonded to Wood-based Structural Sheathing, Used as Water-Resistive Barriers.
8. ICC-ES ESR-1539 - Power Driven Staples and Nails for Use in Engineered and Non-Engineered Connections.
9. ICC-ES NER-272 - Power Driven Staples and Nails for Use in All Types of Building Construction.

F. Sustainable Forestry Initiative (SFI): www.sfiprogram.org/
1. SFI 2010 - 2014 Standard.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of sheathing product specified.

1.4 INFORMATIONAL SUBMITTALS

A. Evaluation Reports: From ICC-ES, for wood sheathing and seam tape.
B. Product Certifications: From manufacturer, indicating that sheathing products comply with ICC-ES AC269 and ICC-ES AC310.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Provide wood products from manufacturer certified by SFI, FSC, or comparable sustainable forestry program acceptable to Engineer.
B. Provide wall sheathing products meeting requirements for water-resistive barrier in accordance with ICC-ES AC310.
C. Provide wall sheathing products meeting requirements of ICC-ES AC269.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Comply with manufacturer's written instructions for protection of sheathing products from weather prior to installation.

1.7 WARRANTY

A. Special Manufacturer's Warranty: Manufacturer's standard form in which sheathing manufacturer agrees to repair or replace sheathing products that demonstrate deterioration or failure under normal use due to manufacturing defects within warranty period specified, when installed according to manufacturer's instructions.
1. Warranty Period for Sheathing Products: Thirty years following date of Substantial Completion.
2. Warranty Conditions: Special warranties exclude deterioration or failure due to structural movement resulting in stresses on sheathing products exceeding manufacturer's written specifications, or due to air or moisture infiltration resulting from cladding failure or mechanical damage.

## PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Product: Provide sheathing products manufactured by Huber Engineered Woods LLC, Charlotte NC; Phone: 800.933.9220; Website: www.zipsystem.com.

2.2 PERFORMANCE REQUIREMENTS

A. Air-Barrier Assembly Air Leakage: Less than 0.04 cubic feet per minute per square foot at 1.57 pound force per square foot, per ASTM E2375.
B. Water-Vapor Permeance, Facer: Minimum 12 perms, ASTM E96.
C. Weather Exposure: Manufacturer warranty applies for maximum allowable exposure period of 180 days.

2.3 MATERIALS

A. Oriented Strand Board: DOC PS 2, made with binder containing no added urea formaldehyde.
B. Rigid Foam Plastic Insulating Board: Rigid polyisocyanurate foam core complying with ASTM C1289 Type II, Class 2, and ICC-ES AC12, with coated glass fiber facers on both sides, with the following characteristics:
   1. Nominal Density: Two pounds per cubic foot.
   2. Compressive Strength, ASTM D1621: Not less than 20 psi.
   3. Vapor Permeance, ASTM E96: Less than 1.0 perm.
   4. Edge Configuration: Square finished.

2.4 COMPOSITE INSULATING WALL SHEATHING

A. Composite Insulating Wall Sheathing: Oriented-strand-board Exposure one sheathing 7/16-inch thick, with factory-laminated water-resistive barrier exterior facer, and with rigid foam plastic insulating board laminated to interior face.
   1. Basis-of-Design Product: Provide Huber Engineered Woods LLC; ZIP System R Sheathing.
   2. Span Rating and Performance Category of Sheathing Layer: Not less than 24/16; 7/16 Performance Category.
   3. Thickness: One inch.
   4. Thermal Resistivity (R Value): 6.6 degrees F by h by square foot/BTU by inches at 75 degrees F.
   5. Edge Profile: Square edge.
   6. Exterior Facer: Medium-density, phenolic-impregnated polymer-modified sheet material meeting requirements for ASTM D779 Grade D weather-resistive barrier in accordance with ICC AC38 and AC310, with fastener spacing symbols on exterior facer for 16-inch and 24-inch on center spacing, with the following characteristics
      a. Water Resistance of Coatings, ASTM D2247: Pass 14 day exposure test.
      b. Moisture Vapor Transmission, ASTM E96: Not less than 12 perms.
      c. Water Penetration, ASTM E331: Pass at 2.86 pound force per square foot.
      d. Wind Driven Rain, TAS-100: Pass.
      e. Accelerated Weathering, ASTM G154: Pass.

2.5 FASTENERS

A. Fasteners, General: Size and type complying with manufacturer's written instructions for Project conditions and requirements of authorities having jurisdiction.
   1. Corrosion Resistance: Hot-dip zinc coating, ASTM A153.
B. Nails, Brads, and Staples: ICC AC116 and ICC AC201.

C. Power-Driven Fasteners: ICC-ES-1539 or NER-272.
D. Wood Screws: ASME B18.6.1.

2.6 SHEATHING JOINT-AND-PENETRATION TREATMENT MATERIAL

A. Self-Adhering Seam and Flashing Tape: Pressure-sensitive, self-adhering, cold-applied, seam tape consisting of polyolefin film with acrylic adhesive, meeting ICC AC148.
   1. Basis-of-Design Product: Provide Huber Engineered Woods; ZIP System Tape.
   2. Thickness: 0.012-inch

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine framing spacing and alignment to determine if Work is ready to receive sheathing. Proceed with sheathing Work once conditions meet requirements.

3.2 SHEATHING INSTALLATION

A. Install sheathing panels in accordance with manufacturer's written instructions, requirements of applicable Evaluation Reports, and requirements of authorities having jurisdiction.
B. Air and Moisture Barrier: Coordinate sheathing installation with flashing and joint sealant installation and with adjacent building air and moisture barrier components to provide complete, continuous air- and moisture- barrier.
C. Do not bridge expansion joints; allow joint spacing equal to spacing of structural supports.
D. Install panels with laminated facer to exterior. Stagger end joints of adjacent panel runs.
   1. ICC-ES ESR-1539 OR ICC-NES NER-272 for power-drive fasteners.
   2. IBC: Table 2304.9.1 Fastening Schedule.
E. Apply seam tape at all panel seams, penetrations, and facer defects or cracks to form continuous weathertight surface. Apply tape according to manufacturer's written instructions and requirements of ICC-ES applicable to tape application.

END OF SECTION

# SECTION 06 41 16 - PLASTIC-LAMINATE-CLAD ARCHITECTURAL CABINETS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Plastic-laminate-clad architectural cabinets.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 08 71 00 "Door Hardware."
   3. Section 08 80 00 "Glazing."

### 1.2 COORDINATION

A. Hardware Coordination: Distribute copies of approved hardware schedule specified in Section 08 71 00 "Door Hardware" to manufacturer of architectural cabinets; coordinate Shop Drawings and fabrication with hardware requirements.

### 1.3 ACTION SUBMITTALS

A. Shop Drawings:
   1. Include Plans, elevations, Sections, and attachment details.
   2. Show locations and sizes of furring, blocking, and hanging strips if used, including concealed blocking and reinforcement specified in other Sections.
   3. Show locations and sizes of cutouts and holes for items installed in plastic-laminate architectural cabinets.
B. Samples for Verification: For the following:
   1. Plastic Laminates: In largest size available by manufacturer for each type, color, pattern, and surface finish required.

### 1.4 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver cabinets until painting and similar finish operations that might damage architectural cabinets have been completed in installation areas. Store cabinets in installation areas or in areas where environmental conditions comply with requirements specified in "Field Conditions" Article.

### 1.5 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install cabinets until building is enclosed, wet-work is complete, and HVAC system is operating and maintaining temperature between 60 and 90 degrees F and relative humidity between 25 and 55 percent during the remainder of the construction period.
B. Field Measurements: Where cabinets are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1. Locate concealed framing, blocking, and reinforcements that support cabinets by field measurements before being enclosed/concealed by construction, and indicate measurements on Shop Drawings.

## PART 2 - PRODUCTS

### 2.1 PLASTIC-LAMINATE-CLAD ARCHITECTURAL CABINETS

A. Quality Standard: Unless otherwise indicated, comply with the Engineerural Woodwork Standards for grades of cabinets indicated for construction, finishes, installation, and other requirements.

### 2.2 CABINET HARDWARE AND ACCESSORIES

A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets except for items specified in Section 08 71 00 "Door Hardware."
   1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      a. Accuride International.
      b. Blum, Julius & Co., Inc.
      c. CompX International, Inc.
      d. Grass America Inc.
      e. Hettich America L.P.
      f. Knape & Vogt Manufacturing Company.

B. Frameless Concealed Hinges (European Type): ANSI/BHMA A156.9, B01602, 100 degrees of opening, self-closing.

C. Back-Mounted Pulls: ANSI/BHMA A156.9, B02011.

D. Wire Pulls: Back mounted, solid metal, 5 inches long, 2-1/2 inches deep, and 5/16-inch in diameter.

E. Adjustable Shelf Standards and Supports: ANSI/BHMA A156.9, B04071; with shelf rests, B04081.

F. Shelf Rests: ANSI/BHMA A156.9, B04013; plastic two-pin plastic with shelf hold-down clip.

G. Drawer Slides: ANSI/BHMA A156.9.
   1. Grade 1 and Grade 2: Side mounted and extending under bottom edge of drawer.
      a. Type: Partial extension.
      b. Material: Zinc-plated steel with polymer rollers.
   2. For drawers more than 6 inches high or more than 24 inches wide, provide Grade 1HD-200.

H. Door and Drawer Silencers: ANSI/BHMA A156.16, L03011.

I. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with ANSI/BHMA A156.18 for ANSI/BHMA finish number indicated.
   1. Matte Black: US19; ANSI/BHMA 622 for brass or bronze base.

J. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in ANSI/BHMA A156.9.

2.3 FABRICATION

A. Fabricate architectural cabinets to dimensions, profiles, and details indicated.
B. Complete fabrication, including assembly and hardware application, to maximum extent possible before shipment to Project Site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at Site, provide ample allowance for scribing, trimming, and fitting.
   1. Notify Engineer 7 days in advance of the dates and times architectural cabinet fabrication will be complete.
   2. Trial fit assemblies at manufacturer's shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements before disassembling for shipment.
C. Shop-cut openings to maximum extent possible to receive hardware, appliances, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.
D. Install glass to comply with applicable requirements in Section 08 80 00 "Glazing" and in GANA's "Glazing Manual."
   1. For glass in frames, secure glass with removable stops.
   2. For exposed glass edges, polish and grind smooth.

**PART 3 - EXECUTION**

3.1 PREPARATION

A. Before installation, condition cabinets to humidity conditions in installation areas for not less than 72 hours.

3.2 INSTALLATION

A. Assemble cabinets and complete fabrication at Project Site to extent that it was not completed in the shop.
B. Anchor cabinets to anchors or blocking built in or directly attached to substrates. Secure with wafer-head cabinet installation screws.

C. Install cabinets level, plumb, and true in line to a tolerance of 1/8-inch in 96 inches using concealed shims.
   1. Scribe and cut cabinets to fit adjoining Work, refinish cut surfaces, and repair damaged finish at cuts.
   2. Install cabinets without distortion so doors and drawers fit openings and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.

3.3 ADJUSTING AND CLEANING

A. Repair damaged and defective cabinets, where possible, to eliminate functional and visual defects. Where not possible to repair, replace architectural cabinets. Adjust joinery for uniform appearance.
B. Clean, lubricate, and adjust hardware.
C. Clean cabinets on exposed and semi-exposed surfaces.

END OF SECTION

# SECTION 06 64 00 - PLASTIC PANELING

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Plastic sheet paneling.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 PROJECT CONDITIONS

A. Environmental Limitations: Do not deliver or install plastic paneling until spaces are enclosed and weathertight and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

## PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

A. Obtain plastic paneling and trim accessories from single manufacturer.

2.2 PLASTIC SHEET PANELING

A. Glass-Fiber-Reinforced Plastic Paneling: Gelcoat-finished, glass-fiber-reinforced plastic panels complying with ASTM D5319.
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. Crane Composites, Inc.
      b. Glasteel.
      c. Marlite.
      d. Nudo Products, Inc.
B. Plastic Sheet Paneling Type-A (FRP1): Basis of Design product is Standard FRP manufactured by Marlite, Inc., Arlington, Texas.
   1. Surface-Burning Characteristics: As follows when tested by a qualified testing agency in accordance with ASTM E84. Identify products with appropriate markings of applicable testing agency.
      a. Flame-Spread Index: 200 or less.
      b. Smoke-Developed Index: 450 or less.
   2. Nominal Thickness: Not less than 0.09-inch.
   3. Surface Finish: Molded pebble texture.
   4. Color: Medium Gray P 430N.

C. Plastic Sheet Paneling Type-B (FRP2): Basis of Design product is Symetrix SmartSeam FRP Panels manufactured by Marlite, Inc., Arlington, Texas.
   1. Surface-Burning Characteristics: As follows when tested by a qualified testing agency in accordance with ASTM E84. Identify products with appropriate markings of applicable testing agency.
      a. Flame-Spread Index: 200 or less.
      b. Smoke-Developed Index: 450 or less.
   2. Nominal Thickness: Not less than 0.09-inch.
   3. Surface Configuration: Subway Vertical 3 inch by 6 inch tile configuration.
   4. Surface Finish: Satin.
   5. Color: Black with White Grout Lines, SS105-G63.

2.3 ACCESSORIES

A. Trim Accessories: Manufacturer's standard one-piece vinyl extrusions designed to retain and cover edges of panels. Provide division bars, inside corners, and caps as needed to conceal edges.
   1. Color: Match panels.
B. Adhesive: As recommended by plastic paneling manufacturer.
C. Sealant: Mildew-resistant, single-component, neutral-curing silicone sealant recommended by plastic paneling manufacturer.
   1. Sealant shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers." The building concentration of formaldehyde shall not exceed half of the indoor recommended exposure limit, or 33 micrograms per cubic meter, and that of acetaldehyde shall not exceed 9 micrograms per cubic meter.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Remove wallpaper, vinyl wall covering, loose or soluble paint, and other materials that might interfere with adhesive bond.
B. Prepare substrate by sanding high spots and filling low spots as needed to provide flat, even surface for panel installation.
C. Clean substrates of substances that could impair adhesive bond including oil, grease, dirt, and dust.
D. Condition panels by unpacking and placing in installation space before installation according to manufacturer's written recommendations.

E. Lay out paneling before installing. Locate panel joints to provide equal panels at ends of walls not less than half the width of full panels.
   1. Mark plumb lines on substrate at panel joint locations for accurate installation.
   2. Locate trim accessories or panel joints to allow clearance at panel edges according to manufacturer's written instructions.

## 3.3 INSTALLATION

A. Install plastic paneling according to manufacturer's written instructions.
B. Install panels in a full spread of adhesive.
C. Install trim accessories with adhesive. Do not fasten through panels.
D. Fill grooves in trim accessories with sealant before installing panels, and bed inside corner trim in a bead of sealant.
E. Maintain uniform space between panels and wall fixtures. Fill space with sealant.
F. Remove excess sealant and smears as paneling is installed. Clean with solvent recommended by sealant manufacturer and then wipe with clean dry cloths until no residue remains.

END OF SECTION

# SECTION 07 21 00 - THERMAL INSULATION

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Glass-fiber blanket insulation.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 06 16 13 "Insulating Sheathing" for foam-plastic board sheathing installed directly over wood or steel framing.
   3. Section 09 29 00 "Gypsum Board" for sound attenuation blanket used as acoustic insulation.
   4. Section 13 34 19 "Metal Building Systems" for glass-fiber blanket insulation installed within metal building system.

1.2 ACTION SUBMITTALS

A. Product Data: For the following:
   1. Glass-fiber blanket insulation.

1.3 INFORMATIONAL SUBMITTALS

A. Installer's Certification: Listing type, manufacturer, and R-value of insulation installed in each element of the building thermal envelope.
   1. Sign, date, and post the certification in a conspicuous location on Project Site.
B. Product Test Reports: For each product, for tests performed by a qualified testing agency.
C. Research Reports: For foam-plastic insulation, from ICC-ES.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Protect insulation materials from physical damage and from deterioration due to moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

## PART 2 - PRODUCTS

2.1 GLASS-FIBER BLANKET INSULATION

A. Glass-Fiber Blanket Insulation, Polypropylene-Scrim-Kraft Faced: ASTM C665, Type II (nonreflective faced), Class A (faced surface with a flame-spread index of 25 or less); Category 1 (membrane is a vapor barrier).
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. CertainTeed Corporation.
      b. CertainTeed Insulation.
      c. Johns Manville; a Berkshire Hathaway company.
      d. Knauf Insulation.

e. Owens Corning.

2. Labeling: Provide identification of mark indicating R-value of each piece of insulation 12 inches and wider in width.

2.2 ACCESSORIES

A. Insulation for Miscellaneous Voids:
1. Glass-Fiber Insulation: ASTM C764, Type II, loose fill; with maximum flame-spread and smoke-developed indexes of five, per ASTM E84.

**PART 3 - EXECUTION**

3.1 PREPARATION

A. Clean substrates of substances that are harmful to insulation, including removing projections capable of puncturing insulation or vapor retarders, or that interfere with insulation attachment.

3.2 INSTALLATION, GENERAL

A. Comply with insulation manufacturer's written instructions applicable to products and applications.
B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.
C. Install insulation with manufacturer's R-value label exposed after insulation is installed.
D. Extend insulation to envelop entire area to be insulated. Fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
E. Provide sizes to fit applications and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units unless multiple layers are otherwise shown or required to make up total thickness or to achieve R-value.

3.3 INSTALLATION OF INSULATION IN FRAMED CONSTRUCTION

A. Blanket Insulation: Install in cavities formed by framing members according to the following requirements:
1. Use insulation widths and lengths that fill the cavities formed by framing members. If more than one length is required to fill the cavities, provide lengths that will produce a snug fit between ends.
2. Place insulation in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.
3. Maintain 3-inch clearance of insulation around recessed lighting fixtures not rated for or protected from contact with insulation.
4. For metal-framed wall cavities where cavity heights exceed 96 inches, support unfaced blankets mechanically and support faced blankets by taping flanges of insulation to flanges of metal studs.
5. Vapor-Retarder-Faced Blankets: Tape joints and ruptures in vapor-retarder facings, and seal each continuous area of insulation to ensure airtight installation.
a. Exterior Walls: Set units with facing placed toward exterior of construction.
b. Interior Walls: Set units with facing placed toward areas of high humidity.

B. Miscellaneous Voids: Install insulation in miscellaneous voids and cavity spaces where required to prevent gaps in insulation using the following materials:
   1. Glass-Fiber Insulation: Compact to approximately 40 percent of normal maximum volume equaling a density of approximately 2.5 pounds per cubic feet.

## 3.4 PROTECTION

A. Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes.
B. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION

# SECTION 07 62 00 - SHEET METAL FLASHING AND TRIM

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Formed wall sheet metal fabrications.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 13 34 19 "Metal Building Systems" for sheet metal flashing and trim integral with metal wall panels.

1.2 COORDINATION

A. Coordinate sheet metal flashing and trim layout and seams with sizes and locations of penetrations to be flashed, and joints and seams in adjacent materials.
B. Coordinate sheet metal flashing and trim installation with adjoining roofing and wall materials, joints, and seams to provide leakproof, secure, and noncorrosive installation.

1.3 ACTION SUBMITTALS

A. Product Data: For each of the following:
   1. Underlayment materials.
   2. Elastomeric sealant.
   3. Butyl sealant.

1.4 CLOSEOUT SUBMITTALS

A. Special warranty.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage.
   1. Store sheet metal flashing and trim materials away from uncured concrete and masonry.
   2. Protect stored sheet metal flashing and trim from contact with water.
B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal flashing and trim installation.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

A. Sheet metal flashing and trim assemblies, including cleats, anchors, and fasteners, shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.

B. Sheet Metal Standard for Flashing and Trim: Comply with SMACNA's "Engineerural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.

C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

### 2.2 SHEET METALS

A. Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.

B. Stainless Steel Sheet: ASTM A240, Type 316, dead soft, fully annealed; with smooth, flat surface.

### 2.3 MISCELLANEOUS MATERIALS

A. Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal unless otherwise indicated.

B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal.
   1. Fasteners for Stainless Steel Sheet: Series 300 stainless steel.

C. Bituminous Coating: Cold-applied asphalt emulsion in accordance with ASTM D1187.

### 2.4 WALL SHEET METAL FABRICATIONS

A. Through-Wall Flashing: Fabricate continuous flashings in minimum 96-inch-long, but not exceeding 12-foot-long, sections, under copings, and at shelf angles. Fabricate discontinuous lintel, sill, and similar flashings to extend 6 inches beyond each side of wall openings; and form with 2-inch-high, end dams. Fabricate from the following materials:
   1. Stainless Steel: 0.0156-inch thick.

B. Opening Flashings in Frame Construction: Fabricate head, sill, jamb, and similar flashings to extend beyond wall openings. Form head and sill flashing with 2-inch-high, end dams. Fabricate from the following materials:
   1. Stainless Steel: 0.0156-inch thick.

C. Wall Expansion-Joint Cover: Fabricate from the following materials:
   1. Stainless Steel: 0.0188-inch thick.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with installer present, for compliance with requirements for installation tolerances, substrate, and other conditions affecting performance of the Work.
   1. Verify compliance with requirements for installation tolerances of substrates.
   2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
   3. Verify that air- or water-resistant barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION, GENERAL

A. Install sheet metal flashing and trim to comply with details indicated and recommendations of cited sheet metal standard that apply to installation characteristics required unless otherwise indicated on Drawings.
   1. Install fasteners, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
   2. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of sealant.
   3. Anchor sheet metal flashing and trim and other components of the Work securely in place with provisions for thermal and structural movement.
   4. Install sheet metal flashing and trim to fit substrates and to result in watertight performance.
   5. Space individual cleats not more than 12 inches apart. Attach each cleat with at least two fasteners. Bend tabs over fasteners.
   6. Install exposed sheet metal flashing and trim with limited oil-canning, and free of buckling and tool marks.
   7. Do not field cut sheet metal flashing and trim by torch.

B. Metal Protection: Where dissimilar metals contact each other or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.
   1. Coat concealed side of stainless steel sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
   2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.

C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim.
   1. Space movement joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.
   2. Use lapped expansion joints only where indicated on Drawings.

D. Fasteners: Use fastener sizes that penetrate substrate not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.

E. Conceal fasteners and expansion provisions where possible in exposed Work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.
F. Seal joints as required for watertight construction.
   1. Use sealant-filled joints unless otherwise indicated.

## 3.3 INSTALLATION OF WALL FLASHINGS

A. Install sheet metal wall flashing to intercept and exclude penetrating moisture in accordance with cited sheet metal standard unless otherwise indicated. Coordinate installation of wall flashing with installation of wall-opening components such as windows, doors, and louvers.
B. Opening Flashings in Frame Construction: Install continuous head, sill, jamb, and similar flashings to extend beyond wall openings.

## 3.4 CLEANING

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
B. Clean off excess sealants.

## 3.5 PROTECTION

A. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions.
B. On completion of sheet metal flashing and trim installation, remove unused materials and clean finished surfaces as recommended in writing by sheet metal flashing and trim manufacturer.
C. Maintain sheet metal flashing and trim in clean condition during construction.
D. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures, as determined by Engineer.

END OF SECTION

# SECTION 08 11 13 - HOLLOW METAL DOORS AND FRAMES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section includes hollow-metal Work.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 08 71 00 "Door Hardware" for door hardware for hollow-metal doors.

### 1.2 DEFINITIONS

A. Minimum Thickness: Minimum thickness of base metal without coatings according to NAAMM-HMMA 803 or SDI A250.8.

### 1.3 COORDINATION

A. Coordinate anchorage installation for hollow-metal frames. Furnish setting Drawings, templates, and directions for installing anchorages including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project Site in time for installation.

### 1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.
   1. Include construction details, material descriptions, core descriptions, and finishes.
B. Shop Drawings: Include the following:
   1. Elevations of each door type.
   2. Details of doors including vertical- and horizontal-edge details and metal thicknesses.
   3. Frame details for each frame type including dimensioned profiles and metal thicknesses.
   4. Locations of reinforcement and preparations for hardware.
   5. Details of each different wall opening condition.
   6. Details of anchorages, joints, field splices, and connections.
   7. Details of accessories.
   8. Details of moldings, removable stops, and glazing.
   9. Details of conduit and preparations for power, signal, and control systems.
C. Schedule: Provide a schedule of hollow-metal Work prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings. Coordinate with final Door Hardware Schedule.

### 1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver hollow-metal Work palletized, packaged, or crated to provide protection during transit and Project Site storage. Do not use non-vented plastic.
   1. Provide additional protection to prevent damage to factory-finished units.

B. Store hollow-metal work vertically under cover at Project Site with head up. Place on minimum 4-inch-high wood blocking. Provide minimum 1/4-inch space between each stacked door to permit air circulation.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

A. Source Limitations: Obtain hollow-metal Work from single source from single manufacturer.

### 2.2 INTERIOR DOORS AND FRAMES

A. Construct interior doors and frames to comply with the standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances and as specified.
B. Heavy-Duty Doors and Frames: SDI A250.8, Level 2 at locations indicated in the Door and Frame Schedule.
   1. Physical Performance: Level B according to SDI A250.4.
   2. Doors:
      a. Type: As indicated in the Door and Frame Schedule.
      b. Thickness: One-and-three-fourth inches.
      c. Core: Manufacturer's standard kraft-paper honeycomb, polystyrene, polyurethane, polyisocyanurate, mineral-board, or vertical steel-stiffener core at manufacturer's discretion.
   3. Frames:
      a. Construction: Face welded.
   4. Exposed Finish: Prime.

### 2.3 EXTERIOR HOLLOW-METAL DOORS AND FRAMES

A. Construct exterior doors and frames to comply with the standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances and as specified.
B. Extra-Heavy-Duty Doors and Frames: SDI A250.8, Level 3.
   1. Physical Performance: Level A according to SDI A250.4.
   2. Doors:
      a. Type: As indicated in the Door and Frame Schedule.
      b. Thickness: One-and-three-fourth inches.
      c. Face: Metallic-coated steel sheet, minimum thickness of 0.053-inch, with minimum A40 coating.
   3. Frames:
      a. Construction: Face welded.
   4. Exposed Finish: Prime.

### 2.4 BORROWED LITES

**A.** Hollow-metal frames of uncoated steel sheet, minimum thickness of 0.053-inch.
B. Construction: Face welded.

## 2.5 FRAME ANCHORS

A. Jamb Anchors:
   1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, not less than 0.042-inch thick, with corrugated or perforated straps not less than 2 inches wide by 10 inches long; or wire anchors not less than 0.177-inch thick.
   2. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042-inch thick.

B. Floor Anchors: Formed from same material as frames, minimum thickness of 0.042-inch, and as follows:
   1. Monolithic Concrete Slabs: Clip-type anchors, with two holes to receive fasteners.

## 2.6 MATERIALS

A. Hot-Rolled Steel Sheet: ASTM A1011, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.

B. Frame Anchors: ASTM A879, Commercial Steel (CS), 04Z coating designation; mill phosphatized.

C. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A153.

D. Grout: ASTM C476, except with a maximum slump of 4 inches, as measured according to ASTM C143.

E. Mineral-Fiber Insulation: ASTM C665, Type I (blankets without membrane facing); consisting of fibers manufactured from slag or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively; passing ASTM E136 for combustion characteristics.

F. Glazing: Comply with requirements in Section 08 80 00 "Glazing."

G. Bituminous Coating: Cold-applied asphalt mastic, compounded for 15 mil dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

## 2.7 FABRICATION

A. Fabricate hollow-metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for metal thickness. Where practical, fit and assemble units in manufacturer's plant. To ensure proper assembly at Project Site, clearly identify Work that cannot be permanently factory assembled before shipment.

B. Hollow-Metal Doors:
   1. Steel-Stiffened Door Cores: Provide minimum thickness 0.026-inch, steel vertical stiffeners of same material as face sheets extending full-door height, with vertical webs spaced not more than 6 inches apart. Spot weld to face sheets no more than 5 inches on center. Fill spaces between stiffeners with glass- or mineral-fiber insulation.
   2. Vertical Edges for Single-Acting Doors: Provide beveled or square edges at manufacturer's discretion.
   3. Bottom Edge Closures: Close bottom edges of doors with end closures or channels of same material as face sheets.
   4. Exterior Doors: Provide weep-hole openings in bottoms of exterior doors to permit moisture to escape. Seal joints in top edges of doors against water penetration.

C. Hollow-Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
   1. Frames: Provide closed tubular members with no visible face seams or joints, fabricated from same material as door frame. Fasten members at crossings and to jambs by butt welding.
   2. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
   3. Grout Guards: Weld guards to frame at back of hardware mortises in frames to be grouted.
   4. Floor Anchors: Weld anchors to bottoms of jambs with at least four spot welds per anchor; however, for slip-on drywall frames, provide anchor clips or countersunk holes at bottoms of jambs.
   5. Jamb Anchors: Provide number and spacing of anchors as follows:
      a. Stud-Wall Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches on center and as follows:
         1) Three anchors per jamb up to 60 inches high.
         2) Four anchors per jamb from 60 to 90 inches high.
         3) Five anchors per jamb from 90 to 96 inches high.
         4) Five anchors per jamb plus one additional anchor per jamb for each 24 inches or fraction thereof above 96 inches high.
      b. Postinstalled Expansion Type: Locate anchors not more than 6 inches from top and bottom of frame. Space anchors not more than 26 inches on center.
   6. Head Anchors: Two anchors per head for frames more than 42 inches wide and mounted in metal-stud partitions.
   7. Door Silencers: Drill stops to receive door silencers where specified in Section 08 71 00 "Door Hardware." Keep holes clear during construction.

D. Fabricate concealed stiffeners and edge channels from either cold- or hot-rolled steel sheet.

E. Hardware Preparation: Factory prepare hollow-metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to SDI A250.6, the Door Hardware Schedule, and templates.
   1. Reinforce doors and frames to receive non-templated, mortised, and surface-mounted door hardware.
   2. Comply with applicable requirements in SDI A250.6 and BHMA A156.115 for preparation of hollow-metal work for hardware.

## 2.8 STEEL FINISHES

A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer.
   1. Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with SDI A250.10; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
B. Examine roughing-in for embedded and built-in anchors to verify actual locations before frame installation.
C. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Drill and tap doors and frames to receive non-templated, mortised, and surface-mounted door hardware.

3.3 INSTALLATION

A. General: Install hollow-metal work plumb, rigid, properly aligned, and securely fastened in place. Comply with Drawings and manufacturer's written instructions.
B. Hollow-Metal Frames: Install hollow-metal frames for doors, transoms, sidelites, borrowed lites, and other openings, of size and profile indicated. Comply with SDI A250.11 or NAAMM-HMMA 840 as required by standards specified.
    1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.
        a. Where frames are fabricated in sections because of shipping or handling limitations, field splice at approved locations by welding face joint continuously; grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces.
        b. Install frames with removable stops located on secure side of opening.
        c. Install door silencers in frames before grouting.
        d. Remove temporary braces necessary for installation only after frames have been properly set and secured.
        e. Check plumb, square, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances.
        f. Field apply bituminous coating to backs of frames that will be filled with grout containing antifreezing agents.
    2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with postinstalled expansion anchors.
    3. Metal-Stud Partitions: Solidly pack mineral-fiber insulation inside frames.
    4. In-Place Concrete or Masonry Construction: Secure frames in place with postinstalled expansion anchors. Countersink anchors, and fill and make smooth, flush, and invisible on exposed faces.
    5. Installation Tolerances: Adjust hollow-metal door frames for squareness, alignment, twist, and plumb to the following tolerances:

a. Squareness: Plus or minus 1/16-inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
b. Alignment: Plus or minus 1/16-inch, measured at jambs on a horizontal line parallel to plane of wall.
c. Twist: Plus or minus 1/16-inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
d. Plumbness: Plus or minus 1/16-inch, measured at jambs at floor.

C. Hollow-Metal Doors: Fit hollow-metal doors accurately in frames, within clearances specified below. Shim as necessary.
1. Non-Fire-Rated Steel Doors:
a. Between Door and Frame Jambs and Head: One-eighth-inch plus or minus 1/32-inch.
b. Between Edges of Pairs of Doors: One-eighth-inch to 1/4-inch plus or minus 1/32-inch.
c. At Bottom of Door: Three-fourth-inch plus or minus 1/32-inch.
d. Between Door Face and Stop: One-sixteenth-inch to 1/8-inch plus or minus 1/32-inch.

## 3.4 ADJUSTING AND CLEANING

A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave Work in complete and proper operating condition. Remove and replace defective Work, including hollow-metal Work that is warped, bowed, or otherwise unacceptable.
B. Remove grout and other bonding material from hollow-metal Work immediately after installation.
C. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.
D. Metallic-Coated Surface Touchup: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.
E. Touchup Painting: Cleaning and touchup painting of abraded areas of paint are specified in painting Sections.

END OF SECTION

# SECTION 08 33 23 - OVERHEAD COILING DOORS

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Insulated service doors.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 ACTION SUBMITTALS

A. Product Data: For each type and size of overhead coiling door and accessory.
   1. Include construction details, material descriptions, dimensions of individual components, profiles for slats, and finishes.
B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.
   1. Include points of attachment and their corresponding static and dynamic loads imposed on structure.
   2. Show locations of controls, locking devices, detectors or replaceable fusible links, and other accessories.
   3. Include diagrams for power, signal, and control wiring.

1.3 CLOSEOUT SUBMITTALS

A. Maintenance data.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer for both installation and maintenance of units required for this Project.

1.5 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of doors that fail in materials or workmanship within specified warranty period.
   1. Warranty Period: Two years from date of Substantial Completion.

## PART 2 - PRODUCTS

2.1 DOOR ASSEMBLY

A. Door: Overhead coiling door formed with curtain of interlocking metal slats.
   1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      a. Overhead Door Corporation.

b. Raynor Garage Doors.
c. Windsor Door.

B. Operation Cycles: Door components and operators capable of operating for not less than 20,000.
C. Door Curtain Material: Galvanized steel.
D. Door Curtain Slats: Curved profile slats of center-to-center height.
E. Hood: Galvanized steel.
F. Locking Devices: Equip door with slide bolt for padlock and chain lock keeper.
G. Electric Door Operator:
1. Usage Classification: Medium duty, up to 12 cycles per hour and up to 50 cycles per day.
2. Safety: Listed according to UL 325 by a qualified testing agency for commercial or industrial use.
3. Motor Exposure: Interior.
4. Motor Electrical Characteristics:
a. Horsepower: One-half horse power.
b. Voltage: 115V AC, single phase, 60 Hz.
5. Emergency Manual Operation: Crank type.
6. Control Station(s): Interior mounted.
H. Door Finish:
1. Baked-Enamel or Powder-Coated Finish: Color as selected by Engineer from manufacturer's full range.
2. Interior Curtain-Slat Facing: Match finish of exterior curtain-slat face.

## 2.2 MATERIALS, GENERAL

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

## 2.3 HOODS

A. General: Form sheet metal hood to entirely enclose coiled curtain and operating mechanism at opening head. Contour to fit end brackets to which hood is attached. Roll and reinforce top and bottom edges for stiffness. Form closed ends for surface-mounted hoods and fascia for any portion of between-jamb mounting that projects beyond wall face. Equip hood with intermediate support brackets as required to prevent sagging.
1. Include automatic drop baffle on fire-rated doors to guard against passage of smoke or flame.
2. Exterior-Mounted Doors: Fabricate hood to act as weather protection and with a perimeter sealant-joint-bead profile for applying joint sealant.

## 2.4 LOCKING DEVICES

A. Slide Bolt: Fabricate with side-locking bolts to engage through slots in tracks for locking by padlock, located on both left and right jamb sides, operable from coil side.
B. Safety Interlock Switch: Equip power-operated doors with safety interlock switch to disengage power supply when door is locked.

2.5 MANUAL DOOR OPERATORS

A. General: Equip door with manual door operator by door manufacturer.
B. Crank Operator: Consisting of crank and crank gearbox, steel crank drive shaft, and gear-reduction unit, of type indicated. Size gears to require not more than force to turn crank. Fabricate gearbox to be oiltight and to completely enclose operating mechanism. Provide manufacturer's standard crank-locking device.

2.6 ELECTRIC DOOR OPERATORS

A. General: Electric door operator assembly of size and capacity recommended and provided by door manufacturer for door and operation-cycles requirement specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, control stations, control devices, integral gearing for locking door, and accessories required for proper operation.
   1. Comply with NFPA 70.
   2. Control equipment complying with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6, with NFPA 70 Class 2 control circuit, maximum 24V AV or DC.
B. Motors: Reversible-type motor with controller (disconnect switch) for motor exposure indicated for each door assembly.
C. Control Station: Three-button control station in fixed location with momentary-contact push-button controls labeled "Open" and "Stop" and sustained- or constant-pressure push-button control labeled "Close."
D. Emergency Manual Operation: Equip each electrically powered door with capability for emergency manual operation. Design manual mechanism so required force for door operation does not exceed 30 pound force.
E. Emergency Operation Disconnect Device: Equip operator with hand-operated disconnect mechanism for automatically engaging manual operator and releasing brake for emergency manual operation while disconnecting motor without affecting timing of limit switch. Mount mechanism so it is accessible from floor level. Include interlock device to automatically prevent motor from operating when emergency operator is engaged.

**PART 3 - EXECUTION**

3.1 INSTALLATION, GENERAL

A. Install overhead coiling doors and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports; according to manufacturer's written instructions and as specified.
B. Power-Operated Doors: Install automatic garage doors openers according to UL 325.

END OF SECTION

# SECTION 08 41 13 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Aluminum-framed storefront systems.
   2. Aluminum-framed entrance door systems.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project Site.

### 1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.
   1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: For aluminum-framed entrances and storefronts. Include plans, elevations, Sections, full-size details, and attachments to other Work.
   1. Include details of provisions for assembly expansion and contraction and for draining moisture occurring within the assembly to the exterior.
   2. Include full-size isometric details of each type of vertical-to-horizontal intersection of aluminum-framed entrances and storefronts, showing the following:
      a. Joinery, including concealed welds.
      b. Anchorage.
      c. Expansion provisions.
      d. Glazing.
      e. Flashing and drainage.
   3. Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers.
   4. Include point-to-point wiring diagrams showing the following:
      a. Power requirements for each electrically operated door hardware.
      b. Location and types of switches, signal device, conduit sizes, and number and size of wires.

C. Samples for Verification: For each type of exposed finish required, in manufacturer's standard sizes.

### 1.4 INFORMATIONAL SUBMITTALS

A. Certificates:
   1. Energy Performance Certificates: For aluminum-framed entrances and storefronts, accessories, and components, from manufacturer.
      a. Basis for Certification: NFRC-certified energy performance values for each aluminum-framed entrance and storefront.

1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For aluminum-framed entrances and storefronts.

1.6 QUALITY ASSURANCE

A. Qualifications:
   1. Installers: An entity that employs installers and supervisors who are trained and approved by manufacturer and that employs a qualified glazing Contractor for this Project who is certified under the North American Contractor Certification Program (NACC) for Architectural Glass & Metal (AG&M) contractors and that employs glazing technicians certified under the Architectural Glass and Metal Technician (AGMT) certification program.
   2. Delegated Design Engineer: A professional Engineer who is legally qualified to practice in state where Project is located and who is experienced in providing engineering services of the type indicated.
   3. Laboratory Mockup Testing Agency: Qualified in accordance with ASTM E699 for testing indicated.
   4. Testing Agency: Qualified in accordance with ASTM E699 for testing indicated and accredited by IAS or ILAC Mutual Recognition Arrangement as complying with ISO/IEC 17025 and acceptable to Owner and Engineer.
   5. Egress Door Inspector: Inspector for field quality-control inspections of egress door assemblies shall comply with qualifications set forth in NFPA 101, Section 7.2.1.15.4 and the following:
      a. DHI's Fire and Egress Door Assembly Inspector (FDAI) certification.

1.7 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of aluminum-framed entrances and storefronts that do not comply with requirements or that fail in materials or workmanship within specified warranty period.
   1. Failures include, but are not limited to, the following:
      a. Structural failures including, but not limited to, excessive deflection.
      b. Noise or vibration created by wind and thermal and structural movements.
      c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
      d. Water penetration through fixed glazing and framing areas.
      e. Failure of operating components.
   2. Warranty Period: Two years from date of Substantial Completion.

B. Special Finish Warranty, Anodized Finishes: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of anodized finishes within specified warranty period.
   1. Deterioration includes, but is not limited to, the following:
      a. Color fading more than 5 Delta E units when tested in accordance with ASTM D 2244.
      b. Chalking in excess of a No. 8 rating when tested in accordance with ASTM D 4214.
      c. Cracking, peeling, or chipping.
   2. Warranty Period: Two years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. Commercial Architectural Products, Inc.
   2. EFCO Corporation.
   3. Kawneer North America, an Arconic company.
   4. Oldcastle BuildingEnvelope (OBE); CRH Americas.
   5. Trulite Glass & Aluminum Solutions, LLC.
   6. Tubelite Inc.
   7. U.S. Aluminum; a brand of C.R. Laurence.

B. Source Limitations: Obtain all components of aluminum-framed entrance and storefront system, including framing and accessories, from single manufacturer.

### 2.2 PERFORMANCE REQUIREMENTS

A. General Performance: Comply with performance requirements specified, as determined by testing of aluminum-framed entrances and storefronts representing those indicated for this Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.
   1. Aluminum-framed entrances and storefronts shall withstand movements of supporting structure including, but not limited to, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
   2. Failure also includes the following:
      a. Thermal stresses transferring to building structure.
      b. Glass breakage.
      c. Noise or vibration created by wind and thermal and structural movements.
      d. Loosening or weakening of fasteners, attachments, and other components.
      e. Failure of operating units.

B. Structural Loads:
   1. Wind Loads: As indicated on Drawings.
   2. Other Design Loads: As indicated on Drawings.

C. Deflection of Framing Members Supporting Glass: At design wind load, as follows:
   1. Deflection Normal to Wall Plane: Limited to 1/175 of clear span for spans of up to 13 feet 6 inches and to 1/240 of clear span plus 1/4-inch for spans greater than 13 feet 6 inches.
   2. Deflection Parallel to Glazing Plane: Limited to amount not exceeding that which reduces glazing bite to less than 75 percent of design dimension and that which reduces edge clearance between framing members and glazing or other fixed components to less than 1/8-inch.

D. Structural: Test in accordance with ASTM E330/E330M as follows:
   1. When tested at positive and negative wind-load design pressures, storefront assemblies, including entrance doors, do not evidence deflection exceeding specified limits.

2. When tested at 150 percent of positive and negative wind-load design pressures, storefront assemblies, including entrance doors and anchorage, do not evidence material failures, structural distress, or permanent deformation of main framing members exceeding 0.2 percent of span.
3. Test Durations: As required by design wind velocity, but not less than 10 seconds.

E. Water Penetration under Static Pressure: Test in accordance with ASTM E331 as follows:
1. No evidence of water penetration through fixed glazing and framing areas, including entrance doors, when tested in accordance with a minimum static-air-pressure differential of 20 percent of positive wind-load design pressure, but not less than 10 pound force per square foot.
2. Maximum Water Leakage: In accordance with AAMA 501.1. Water leakage does not include water controlled by flashing and gutters, or water that is drained to exterior.

F. Energy Performance: Certified and labeled by manufacturer for energy performance as follows:
1. Thermal Transmittance (U-factor):
a. Fixed Glazing and Framing Areas: U-factor for the system of not more than 0.45 Btu per square foot by h by degrees F as determined in accordance with NFRC 100.
b. Entrance Doors: U-factor of not more than 0.77 Btu per square foot by h by degrees F as determined in accordance with NFRC 100.
2. Solar Heat-Gain Coefficient (SHGC):
a. Fixed Glazing and Framing Areas: SHGC for the system of not more than 0.35 as determined in accordance with NFRC 200.
b. Entrance Doors: SHGC of not more than 0.25 as determined in accordance with NFRC 200.
3. Air Leakage:
a. Fixed Glazing and Framing Areas: Air leakage for the system of not more than 0.06-cubic foot per minute per square foot at a static-air-pressure differential of 1.57 pounds of force per square foot when tested in accordance with ASTM E283.
b. Entrance Doors: Air leakage of not more than 1.0 cubic foot per minute per square foot at a static-air-pressure differential of 1.57 pounds of force per square foot.
4. Condensation Resistance Factor (CRF):
a. Fixed Glazing and Framing Areas: CRF for the system of not less than 55 as determined in accordance with AAMA 1503.
b. Entrance Doors: CRF of not less than 63 as determined in accordance with AAMA 1503.

G. Thermal Movements: Allow for thermal movements resulting from ambient and surface temperature changes.
1. Temperature Change: 120 degrees F, ambient; 180 degrees F, material surfaces.
2. Thermal Cycling: No buckling; stress on glass; sealant failure; excess stress on framing, anchors, and fasteners; or reduction of performance when tested in accordance with AAMA 501.5.
a. High Exterior Ambient-Air Temperature: That which produces an exterior metal-surface temperature of 180 degrees F.
b. Low Exterior Ambient-Air Temperature: Zero degrees F.
c. Interior Ambient-Air Temperature: 75 degrees F.

2.3 STOREFRONT SYSTEMS

A. Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads.
   1. Exterior Framing Construction: Thermally broken.
   2. Fabrication Method: Field-fabricated stick system.
   3. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
   4. Steel Reinforcement: As required by manufacturer.

B. Backer Plates: Manufacturer's standard, continuous backer plates for framing members, if not integral, where framing abuts adjacent construction.

C. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.

2.4 ENTRANCE DOOR SYSTEMS

A. Entrance Doors: Manufacturer's standard glazed entrance doors for manual-swing or automatic operation.
   1. Door Construction: One-and-three-fourths-inch overall thickness, with minimum 0.125-inch-thick, extruded-aluminum tubular rail and stile members. Mechanically fasten corners with reinforcing brackets that are deeply penetrated and fillet welded or that incorporate concealed tie rods.
   2. Door Design: Wide stile; 5-inch nominal width.
   3. Glazing Stops and Gaskets: Beveled, snap-on, extruded-aluminum stops and preformed gaskets.
      a. Provide nonremovable glazing stops on outside of door.
   4. Finish: Match adjacent storefront framing finish.

2.5 ENTRANCE DOOR HARDWARE

A. General:
   1. Door Hardware: Hardware not specified in this Section is specified in Section 08 71 00 "Door Hardware."
   2. Cylinders: As specified in Section 08 71 00 "Door Hardware."
   3. References to BHMA Standards: Provide products complying with these standards and requirements for description, quality, and function.

B. Hardware sets for aluminum doors located in Section 08 71 00.10 "Door Hardware Schedule."
   1. Weather Stripping: Manufacturer's standard replaceable components.
   2. Weather Sweeps: Manufacturer's standard exterior-door bottom sweep with concealed fasteners on mounting strip.
   3. Thresholds: BHMA A156.21 raised thresholds beveled with a slope of not more than 1:2, with maximum height of 1/2-inch.

2.6 GLAZING

A. Glazing: Comply with Section 08 80 00 "Glazing."Glazing."

B. Glazing Gaskets: Manufacturer's standard sealed-corner pressure-glazing system of black, resilient elastomeric glazing gaskets, setting blocks, and shims or spacers.

C. Glazing Sealants: As recommended by manufacturer.

D. Structural Glazing Sealants: ASTM C1184 chemically curing silicone formulation that is compatible with system components with which it comes in contact; specifically formulated and tested for use as structural sealant and approved by structural-sealant manufacturer for use in storefront system indicated.
   1. Color: Black.
   2. Weatherseal Sealants: ASTM C920 for Type S; Grade NS; Class 25; Uses NT, G, A, and O; chemically curing silicone formulation that is compatible with structural sealant and other system components with which it comes in contact; recommended by structural-sealant, weatherseal-sealant, and structural-sealant-glazed storefront manufacturers for this use.
      a. Color: Match structural sealant.

## 2.7 MATERIALS

A. Sheet and Plate: ASTM B209.
B. Extruded Bars, Rods, Profiles, and Tubes: ASTM B221.
C. Structural Profiles: ASTM B308/B308M.

## 2.8 ACCESSORIES

A. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding fasteners and accessories compatible with adjacent materials.
   1. Use self-locking devices where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration.
   2. Reinforce members as required to receive fastener threads.
   3. Use exposed fasteners with countersunk Phillips screw heads, finished to match framing system.
B. Concealed Flashing: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding flashing compatible with adjacent materials.
C. Bituminous Paint: Cold-applied asphalt-mastic paint containing no asbestos, formulated for 30-mil thickness per coat.
D. Rigid PVC filler.

## 2.9 FABRICATION

A. Form or extrude aluminum shapes before finishing.
B. Fabricate components that, when assembled, have the following characteristics:
   1. Profiles that are sharp, straight, and free of defects or deformations.
   2. Accurately fitted joints with ends coped or mitered.
   3. Physical and thermal isolation of glazing from framing members.
   4. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
   5. Provisions for field replacement of glazing from exterior.
   6. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
C. Mechanically Glazed Framing Members: Fabricate for flush glazing without projecting stops.
D. Storefront Framing: Fabricate components for assembly using screw-spline system.

E. Entrance Door Frames: Reinforce as required to support loads imposed by door operation and for installing entrance door hardware.
   1. At interior and exterior doors, provide compression weather stripping at fixed stops.
F. Entrance Doors: Reinforce doors as required for installing entrance door hardware.
   1. At pairs of exterior doors, provide sliding-type weather stripping retained in adjustable strip and mortised into door edge.
   2. At exterior doors, provide weather sweeps applied to door bottoms.
G. Entrance Door Hardware Installation: Factory install entrance door hardware to the greatest extent possible. Cut, drill, and tap for factory-installed entrance door hardware before applying finishes.
H. After fabrication, clearly mark components to identify their locations in Project in accordance with Shop Drawings.

2.10 ALUMINUM FINISHES

A. Color Anodic Finish: AAMA 611, AA-M12C22A42/A44, Class I, 0.018-millimeter or thicker.
   1. Color: black.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

A. Comply with manufacturer's written instructions.
B. Do not install damaged components.
C. Fit joints to produce hairline joints free of burrs and distortion.
D. Rigidly secure nonmovement joints.
E. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent impeding movement of moving joints.
F. Seal perimeter and other joints watertight unless otherwise indicated.
G. Metal Protection:
   1. Where aluminum is in contact with dissimilar metals, protect against galvanic action by painting contact surfaces with materials recommended by manufacturer for this purpose or by installing nonconductive spacers.
   2. Where aluminum is in contact with concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.
H. Set continuous sill members and flashing in full sealant bed, as specified in Section 07 92 00 "Joint Sealants," to produce weathertight installation.
I. Install joint filler behind sealant as recommended by sealant manufacturer.
J. Install components plumb and true in alignment with established lines and grades.

3.3 INSTALLATION OF GLAZING

A. Install glazing as specified in Section 08 80 00 "Glazing."

3.4 INSTALLATION OF STRUCTURAL GLAZING

A. Prepare surfaces that will contact structural sealant in accordance with sealant manufacturer's written instructions, to ensure compatibility and adhesion. Preparation includes, but is not limited to, cleaning and priming surfaces.
B. Set glazing into framing in accordance with sealant manufacturer and framing manufacturer's written instructions and standard practice. Use a spacer or backer as recommended by manufacturer.
C. Set glazing with proper orientation so that coatings face exterior or interior as specified.
D. Hold glazing in place using temporary retainers of type and spacing recommended by manufacturer until structural sealant joint has cured.
E. Apply structural sealant to completely fill cavity in accordance with sealant manufacturer and framing manufacturer's written instructions and in compliance with local codes.
F. Apply structural sealant at temperatures indicated by sealant manufacturer for type of sealant.
G. Allow structural sealant to cure in accordance with manufacturer's written instructions.
H. Clean and protect glass as indicated in Section 08 80 00 "Glazing."

3.5 INSTALLATION OF WEATHERSEAL SEALANT

A. After structural sealant has completely cured, remove temporary retainers and insert backer rod between lites of glass as recommended by sealant manufacturer.
B. Install weatherseal sealant to completely fill cavity, in accordance with sealant manufacturer's written instructions, to produce weatherproof joints.

3.6 INSTALLATION OF ALUMINUM-FRAMED ENTRANCE DOORS

A. Install entrance doors to produce smooth operation and tight fit at contact points.
    1. Exterior Doors: Install to produce weathertight enclosure and tight fit at weather stripping.
    2. Field-Installed Entrance Door Hardware: Install surface-mounted entrance door hardware in accordance with entrance door hardware manufacturers' written instructions using concealed fasteners to greatest extent possible.

3.7 ERECTION TOLERANCES

A. Install aluminum-framed entrances and storefronts to comply with the following maximum tolerances:
    1. Plumb: 1/8-inch in 10 feet; 1/4 inch in 40 feet.
    2. Level: 1/8-inch in 20 feet; 1/4-inch in 40 feet.
    3. Alignment:
        a. Where surfaces abut in line or are separated by reveal or protruding element up to 1/2-inch wide, limit offset from true alignment to 1/1- inch.
        b. Where surfaces are separated by reveal or protruding element from 1/2-inch to 1 inch wide, limit offset from true alignment to 1/8-inch.

c. Where surfaces are separated by reveal or protruding element of 1 inch wide or more, limit offset from true alignment to 1/4-inch.

4. Location: Limit variation from plane to 1/8-inch in 12 feet; 1/2-inch over total length.

END OF SECTION

# SECTION 08 80 00 - GLAZING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Glass products.
   2. Insulating glass.
   3. Glazing tapes.
   4. Miscellaneous glazing materials.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 DEFINITIONS

A. Glass Manufacturers: Firms that produce primary glass, fabricated glass, or both, as defined in referenced glazing publications.

B. Glass Thicknesses: Indicated by thickness designations in millimeters in accordance with ASTM C1036.

C. IBC: International Building Code.

D. Interspace: Space between lites of an insulating-glass unit.

### 1.3 COORDINATION

A. Coordinate glazing channel dimensions to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses with reasonable tolerances to achieve proper safety margins for glazing retention under each design load case, load case combination, and service condition.

### 1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Glass Samples: For each type of glass product other than clear monolithic vision glass; 12 inches square.

C. Glazing Schedule: List glass types and thicknesses for each size opening and location. Use same designations indicated on Drawings.

### 1.5 DELIVERY, STORAGE, AND HANDLING

A. Protect glazing materials in accordance with manufacturer's written instructions. Prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.

B. Comply with insulating-glass manufacturer's written instructions for venting and sealing units to avoid hermetic seal ruptures due to altitude change.

1.6 FIELD CONDITIONS

A. Environmental Limitations: Do not proceed with glazing when ambient and substrate temperature conditions are outside limits permitted by glazing material manufacturers and when glazing channel substrates are wet from rain, frost, condensation, or other causes.
   1. Do not install glazing sealants when ambient and substrate temperature conditions are outside limits permitted by sealant manufacturer or are below 40 degrees F.

**PART 2 - PRODUCTS**

2.1 MANUFACTURERS

A. General Glass Manufactures: Unless specified otherwise and subject to compliance with requirements, provide products by the following:
   1. AGC Glass Company North America, Inc.
   2. Guardian Glass; SunGuard.
   3. Pilkington North America.
   4. Viracon, Inc.
   5. Vitro Architectural Glass.

2.2 PERFORMANCE REQUIREMENTS

A. General: Installed glazing systems shall withstand normal thermal movement and wind and impact loads (where applicable) without failure, including loss or glass breakage attributable to defective manufacture, fabrication, or installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.

B. Structural Performance: Glazing shall withstand the following design loads within limits and under conditions indicated determined in accordance with the IBC and ASTM E1300:
   1. Design Wind Pressures: As indicated on Drawings.
      a. Wind Design Data: As indicated on Drawings.
   2. Thermal Loads: Design glazing to resist thermal stress breakage induced by differential temperature conditions and limited air circulation within individual glass lites and insulated glazing units.

C. Safety Glazing: Where safety glazing is indicated or required by IBC or other code, provide glazing that complies with 16 CFR 1201, Category II.

D. Thermal and Optical Performance Properties: Provide glass with performance properties specified, as indicated in manufacturer's published test data, based on procedures indicated below:
   1. For insulating-glass units, properties are based on units of thickness indicated for overall unit and for each lite.
   2. U-Factors: Center-of-glazing values, in accordance with NFRC 100 and based on most current non-beta version of LBL's WINDOW computer program, expressed as Btu per square feet by hour by degrees F.

## 2.3 GLASS PRODUCTS, GENERAL

A. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below unless more stringent requirements are indicated. See these publications for glazing terms not otherwise defined in this Section or in referenced standards.
   1. NGA Publications: "Glazing Manual."
   2. AAMA Publications: AAMA GDSG-1, "Glass Design for Sloped Glazing," and AAMA TIR A7, "Sloped Glazing Guidelines."
   3. IGMA Publication for Sloped Glazing: IGMA TB-3001, "Guidelines for Sloped Glazing."
   4. IGMA Publication for Insulating Glass: SIGMA TM-3000, "North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial and Residential Use."

B. Safety Glazing Labeling: Where safety glazing is indicated, permanently mark glazing with certification label of the SGCC or another certification agency acceptable to authorities having jurisdiction or manufacturer. Label shall indicate manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.

C. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass that complies with performance requirements and is not less than thickness indicated.
   1. Thickness of Tinted Glass: Provide same thickness for each tint color indicated throughout Project.

D. Strength: Where annealed float glass is indicated, provide annealed float glass, heat-strengthened float glass, or fully tempered float glass as needed to comply with "Performance Requirements" Article. Where heat-strengthened float glass is indicated, provide heat-strengthened float glass or fully tempered float glass as needed to comply with "Performance Requirements" Article. Where fully tempered float glass is indicated, provide fully tempered float glass.

## 2.4 GLASS PRODUCTS

A. Reflective- and Low-E-Coated Vision Glass: ASTM C1376.
   1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      a. Cardinal Glass Industries.
      b. Guardian Glass; SunGuard.
      c. Saint-Gobain Glass Exprover NA.
      d. Vitro Architectural Glass.

## 2.5 INSULATING GLASS

A. Insulating-Glass Units: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified in accordance with ASTM E2190.
   1. Sealing System: Dual seal, with manufacturer's standard primary and secondary sealants.
   2. Desiccant: Molecular sieve, silica gel, or a blend of both.

2.6 GLAZING TAPES

A. Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based, 100 percent solids elastomeric tape; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated; and complying with ASTM C1281 and AAMA 800 for products indicated below:
   1. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.
   2. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.

2.7 MISCELLANEOUS GLAZING MATERIALS

A. General: Provide products of material, size, and shape complying with referenced glazing standard, recommended in writing by manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.
B. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.
C. Setting Blocks:
   1. Type recommended in writing by sealant or glass manufacturer.
D. Spacers:
   1. Type recommended in writing by sealant or glass manufacturer.
E. Edge Blocks:
   1. Type recommended in writing by sealant or glass manufacturer.

2.8 FABRICATION OF GLAZING UNITS

A. Fabricate glazing units in sizes required to fit openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.
   1. Allow for thermal movements from ambient and surface temperature changes acting on glass framing members and glazing components.
      a. Temperature Change: 120 degrees F, ambient; 180 degrees F, material surfaces.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine framing, glazing channels, and stops, with Installer present, for compliance with the following:
   1. Manufacturing and installation tolerances, including those for size, squareness, and offsets at corners.
   2. Presence and functioning of weep systems.
   3. Minimum required face and edge clearances.
   4. Effective sealing between joints of glass-framing members.
B. Proceed with installation only after unsatisfactory conditions have been corrected.

## 3.2 PREPARATION

A. Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings not firmly bonded to substrates.
B. Examine glazing units to locate exterior and interior surfaces. Label or mark units as needed so that exterior and interior surfaces are readily identifiable. Do not use materials that leave visible marks in the completed Work.

## 3.3 GLAZING, GENERAL

A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.
B. Protect glass edges from damage during handling and installation. Remove damaged glass from Project Site and legally dispose off Project Site. Damaged glass includes glass with edge damage or other imperfections that, when installed, could weaken glass, impair performance, or impair appearance.
C. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.
D. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.
E. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.
F. Provide spacers for glass lites where length plus width is larger than 50 inches.
    1. Locate spacers directly opposite each other on both inside and outside faces of glass. Install correct size and spacing to preserve required face clearances, unless gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and to comply with system performance requirements.
    2. Provide 1/8-inch-minimum bite of spacers on glass and use thickness equal to sealant width. With glazing tape, use thickness slightly less than final compressed thickness of tape.
G. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and in accordance with requirements in referenced glazing publications.
H. Set glass lites in each series with uniform pattern, draw, bow, and similar characteristics.
I. Set glass lites with proper orientation so that coatings face exterior or interior as specified.

## 3.4 TAPE GLAZING

A. Position tapes on fixed stops so that, when compressed by glass, their exposed edges are flush with or protrude slightly above sightline of stops.
B. Install tapes continuously but not necessarily in one continuous length. Do not stretch tapes to make them fit opening.
C. Cover vertical framing joints by applying tapes to heads and sills first, then to jambs. Cover horizontal framing joints by applying tapes to jambs, then to heads and sills.
D. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.
E. Do not remove release paper from tape until right before each glazing unit is installed.
F. Apply heel bead of elastomeric sealant.

G. Center glass lites in openings on setting blocks, and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.
H. Apply cap bead of elastomeric sealant over exposed edge of tape.

## 3.5 CLEANING AND PROTECTION

A. Immediately after installation, remove non-permanent labels and clean surfaces.
B. Protect glass from contact with contaminating substances resulting from construction operations. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains.
    1. If, despite such protection, contaminating substances do contact with glass, remove substances immediately as recommended in writing by glass manufacturer. Remove and replace glass that cannot be cleaned without damage to coatings.
C. Remove and replace glass that is damaged during construction period.
D. Wash glass on both exposed surfaces not more than 4 days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended in writing by glass manufacturer.
    1. Safety glazing required.

## 3.6 INSULATING GLASS SCHEDULE

A. Low-E-Coated, Tinted Insulating Glass Type G12:
    1. Overall Unit Thickness: 1 inch.
    2. Minimum Thickness of Each Glass Lite: 6 millimeters.
    3. Outdoor Lite: Tinted float glass.
    4. Tint Color: Gray.
    5. Interspace Content: Air.
    6. Indoor Lite: Clear float glass.
    7. Low-E Coating: Sputtered on second surface.
    8. Summer Daytime U-Factor: 0.22 maximum.
    9. SGHC: .25 maximum.

END OF SECTION

# SECTION 09 22 16 - NON-STRUCTURAL METAL FRAMING

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Non-load-bearing steel framing systems for interior partitions.
   2. Suspension systems for interior ceilings and soffits.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.3 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of code-compliance certification for studs and tracks.

1.4 QUALITY ASSURANCE

A. Code-Compliance Certification of Studs and Tracks: Provide documentation that framing members are certified according to the product-certification program of the Certified Steel Stud Association, the Steel Framing Industry Association, the Steel Stud Manufacturers Association, or the Supreme Steel Framing System Association.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Notify manufacturer of damaged materials received prior to installation.
B. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
C. Protect cold-formed metal framing from corrosion, deformation, and other damage during delivery, storage, and handling as required by AISI S202, "Code of Standard Practice for Cold-Formed Steel Structural Framing."

## PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Horizontal Deflection: For composite and non-composite wall assemblies, limited to following ratios of the wall height based on horizontal loading of 5 pounds of force per square foot.
   1. Plaster: 1/360.
   2. Gypsum Board and Other Finishes: 1/240.
B. Design Loads: As indicated on architectural Drawings or 5 pounds of force per square foot minimum as required by the IBC.

2.2 FRAMING SYSTEMS

A. Framing Members, General: Comply with AISI S220 for conditions indicated.
   1. Steel Sheet Components: Comply with AISI S220 requirements for metal unless otherwise indicated
   2. Protective Coating: Comply with AISI S220; ASTM A653, G40; or coating with equivalent corrosion resistance. Galvannealed products are unacceptable.
      a. Coating demonstrates equivalent corrosion resistance with an evaluation report acceptable to authorities having jurisdiction.

B. Studs and Track: AISI S220.
   1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      a. CEMCO; California Expanded Metal Products Co.
      b. ClarkDietrich.
      c. Jaimes Industries.
   2. Minimum Base-Steel Thickness: As required by performance requirements for horizontal deflection.
   3. Depth: As indicated on Drawings.

2.3 SUSPENSION SYSTEMS

A. Tie Wire: ASTM A641, Class 1 zinc coating, soft temper, 0.062-inch-diameter wire, or double strand of 0.048-inch-diameter wire.

B. Wire Hangers: ASTM A641, Class 1 zinc coating, soft temper, 0.16-inch in diameter.

2.4 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards.
   1. Fasteners for Steel Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Suspended Assemblies: Coordinate installation of suspension systems with installation of overhead structure to ensure that inserts and other provisions for anchorages to building structure have been installed to receive hangers at spacing required to support the Work and that hangers will develop their full strength.
   1. Furnish concrete inserts and other devices indicated to other trades for installation in advance of time needed for coordination and construction.

## 3.3 INSTALLATION, GENERAL

A. Installation Standard: ASTM C754.
   1. Gypsum Board Assemblies: Also comply with requirements in ASTM C840 that apply to framing installation.
B. Install framing and accessories plumb, square, and true to line, with connections securely fastened.
C. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.
D. Install bracing at terminations in assemblies.
E. Do not bridge building control and expansion joints with non-load-bearing steel framing members. Frame both sides of joints independently.

## 3.4 INSTALLING FRAMED ASSEMBLIES

A. Install framing system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.
B. Where studs are installed directly against exterior masonry walls or dissimilar metals at exterior walls, install isolation strip between studs and exterior wall.
C. Install studs so flanges within framing system point in same direction.
D. Install tracks at floors and overhead supports. Extend framing full height to structural supports or substrates above suspended ceilings except where partitions are indicated to terminate at suspended ceilings. Continue framing around ducts that penetrate partitions above ceiling.
   1. Door Openings: Screw vertical studs at jambs to jamb anchor clips on door frames; install track section (for cripple studs) at head and secure to jamb studs.
      a. Install two studs at each jamb unless otherwise indicated.
      b. Install cripple studs at head adjacent to each jamb stud, with a minimum 1/2-inch clearance from jamb stud to allow for installation of control joint in finished assembly.
      c. Extend jamb studs through suspended ceilings and attach to underside of overhead structure.
   2. Other Framed Openings: Frame openings other than door openings the same as required for door openings unless otherwise indicated. Install framing below sills of openings to match framing required above door heads.
E. Direct Furring:
   1. Screw to wood framing.
   2. Attach to concrete or masonry with stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches on center.
F. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8-inch from the plane formed by faces of adjacent framing.

## 3.5 INSTALLING CEILING SUSPENSION SYSTEMS

A. Install suspension system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.
   1. Hangers: 48 inches on center.
B. Isolate suspension systems from building structure where they abut or are penetrated by building structure to prevent transfer of loading imposed by structural movement.

C. Suspend hangers from building structure as follows:
   1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structural or suspension system.
      a. Splay hangers only where required to miss obstructions and offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
   2. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with locations of hangers required to support standard suspension system members, install supplemental suspension members and hangers in the form of trapezes or equivalent devices.
      a. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced installation standards.
   3. Wire Hangers: Secure by looping and wire tying, either directly to structures or to inserts, eye screws, or other devices and fasteners that are secure and appropriate for substrate, and in a manner that will not cause hangers to deteriorate or otherwise fail.
   4. Do not attach hangers to steel roof deck.
   5. Do not attach hangers to permanent metal forms. Furnish cast-in-place hanger inserts that extend through forms.
   6. Do not attach hangers to rolled-in hanger tabs of composite steel floor deck.
   7. Do not connect or suspend steel framing from ducts, pipes, or conduit.

D. Installation Tolerances: Install suspension systems that are level to within 1/8-inch in 12 feet measured lengthwise on each member that will receive finishes and transversely between parallel members that will receive finishes.

END OF SECTION

# SECTION 09 29 00 - GYPSUM BOARD

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Interior gypsum board.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 09 22 16 "Non-Structural Metal Framing" for non-structural steel framing and suspension systems that support gypsum board panels.

### 1.2 ACTION SUBMITTALS

A. Product Data: For the following:
   1. Gypsum wallboard.
   2. Gypsum board, Type X.
   3. Interior trim.
   4. Joint treatment materials.
   5. Laminating adhesive.

### 1.3 DELIVERY, STORAGE AND HANDLING

A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

### 1.4 FIELD CONDITIONS

A. Environmental Limitations: Comply with ASTM C840 requirements or gypsum board manufacturer's written instructions, whichever are more stringent.
B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
C. Do not install panels that are wet, moisture damaged, and mold damaged.
   1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
   2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

## PART 2 - PRODUCTS

### 2.1 GYPSUM BOARD, GENERAL

A. Manufacturers: Unless noted otherwise and subject to compliance with requirements, provide products by the following:
   1. Georgia-Pacific Gypsum LLC.
   2. National Gypsum Company.
   3. USG Corporation.

B. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

## 2.2 INTERIOR GYPSUM BOARD

A. Gypsum Wallboard: ASTM C1396.
   1. Thickness: Five-eighths-inch.
   2. Long Edges: Tapered.
B. Gypsum Board, Type X: ASTM C1396.
   1. Thickness: Five-eighths-inch.
   2. Long Edges: Tapered.

## 2.3 TRIM ACCESSORIES

A. Interior Trim: ASTM C1047.
   1. Material: Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized-steel sheet.
   2. Shapes:
      a. Cornerbead.
      b. U-Bead: J-shaped; exposed short flange does not receive joint compound.
      c. Expansion (control) joint.
      d. Base-of-Wall Moisture Barrier Trim: Galvanized-steel sheet, 2 inches high to extruded PVC, 1/2-inch high.
         1) Manufacturers: Subject to compliance with requirements, provide products by the following:
            a) VersaDry, LLC.
            b) Waterguard.

## 2.4 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C475.
B. Joint Tape:
   1. Interior Gypsum Board: Paper.

C. Joint Compound for Interior Gypsum Board: For each coat, use formulation that is compatible with other compounds applied on previous or for successive coats.
   1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.
   2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound.
      a. Use setting-type compound for installing paper-faced metal trim accessories.
   3. Fill Coat: For second coat, use setting-type, sandable topping compound.
   4. Finish Coat: For third coat, use drying-type, all-purpose compound.

## 2.5 AUXILIARY MATERIALS

A. Provide auxiliary materials that comply with referenced installation standards and manufacturer's written instructions.
B. Steel Drill Screws: ASTM C1002 unless otherwise indicated.
   1. Use screws complying with ASTM C954 for fastening panels to steel members from 0.033- to 0.112-inch thick.

C. Thermal Insulation: As specified in Section 07 21 00 "Thermal Insulation."

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Examine areas and substrates including welded hollow-metal frames and support framing, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION AND FINISHING OF PANELS, GENERAL

A. Comply with ASTM C840.
B. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16-inch of open space between panels. Do not force into place.
C. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
D. Form control and expansion joints with space between edges of adjoining gypsum panels.
E. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.,) except in chases braced internally.
    1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 square feet in area.
    2. Fit gypsum panels around ducts, pipes, and conduits.
    3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch-wide joints to install sealant.

F. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments. Provide 1/4- to 1/2-inch-wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
G. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

### 3.3 INSTALLATION OF INTERIOR GYPSUM BOARD

A. Install interior gypsum board in the following locations:
    1. Wallboard Type: As indicated on Drawings.
B. Single-Layer Application:
    1. On partitions/walls, apply gypsum panels horizontally (perpendicular to framing) unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.
        a. Stagger abutting end joints not less than one framing member in alternate courses of panels.

2. On Z-shaped furring members, apply gypsum panels vertically (parallel to framing) with no end joints. Locate edge joints over furring members.
3. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

C. Multilayer Application:
1. On partitions/walls, apply gypsum board indicated for base layers and face layers vertically (parallel to framing) with joints of base layers located over stud or furring member and face-layer joints offset at least one stud or furring member with base-layer joints unless otherwise indicated or required by fire-resistance-rated assembly. Stagger joints on opposite sides of partitions.
2. On Z-shaped furring members, apply base layer vertically (parallel to framing) and face layer either vertically (parallel to framing) or horizontally (perpendicular to framing) with vertical joints offset at least one furring member. Locate edge joints of base layer over furring members.
3. Fastening Methods: Fasten base layers and face layers separately to supports with screws.

## 3.4 INSTALLATION OF TRIM ACCESSORIES

A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
B. Control Joints: Install control joints according to ASTM C840 and in specific locations approved by Engineer for visual effect.
C. Interior Trim: Install in the following locations:
1. Cornerbead: Use at outside corners unless otherwise indicated.
2. U-Bead: Use at exposed panel edges.
3. Base-of-Wall Moisture Barrier Trim: Install per manufacture's instructions. At restroom walls and walls within 4 feet of plumbing, provide PVC base-of-wall moisture barrier trim with sealant between trim and floor.

## 3.5 FINISHING GYPSUM BOARD

A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
B. Prefill open joints and damaged surface areas.
C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C840:
1. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.
a. Primer and its application to surfaces are specified in Section 09 91 23 "Interior Painting."

## 3.6 PROTECTION

A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.

C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
   1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
   2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION

# SECTION 09 51 13 - ACOUSTICAL PANEL CEILINGS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section includes acoustical panels and exposed suspension systems for interior ceilings.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
C. Products furnished, but not installed under this Section, include anchors, clips, and other ceiling attachment devices to be cast in concrete.

### 1.2 INFORMATIONAL SUBMITTALS

A. Field quality-control reports.

### 1.3 DELIVERY, STORAGE, AND HANDLING

A. Deliver acoustical panels, suspension-system components, and accessories to Project Site and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.
B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.

### 1.4 FIELD CONDITIONS

A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
   1. Pressurized Plenums: Operate ventilation system for not less than 48 hours before beginning acoustical panel ceiling installation.

## PART 2 - PRODUCTS

### 2.1 ACOUSTICAL PANELS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1. Armstrong World Industries, Inc.
   2. CertainTeed Corporation.
   3. United States Gypsum Company.
B. Basis of Design product is Dune manufactured by Armstrong World Industries, Inc.
   1. Size: 24 inches by 24 inches by 5/8-inch, item number 1772.
   2. Edge/Joint Detail: Square.
   3. Material: Mineral Fiber.
   4. Color: White.

2.2 METAL SUSPENSION SYSTEM

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1. Armstrong World Industries, Inc.
   2. CertainTeed Corporation.
   3. United States Gypsum Company.

B. Basis of Design product is Prelude XL 15/16-inch Exposed Tee System manufactured by Armstrong World Industries, Inc.
   1. Material: Hot-dipped Galvanized Steel.
   2. Color: White.

2.3 ACCESSORIES

A. Wire Hangers, Braces, and Ties: Provide wires as follows:
   1. Zinc-Coated, Carbon-Steel Wire: ASTM A641, Class 1 zinc coating, soft temper.

B. Hanger Rods: Mild steel, zinc coated or protected with rust-inhibitive paint.

C. Angle Hangers: Angles with legs not less than 7/8-inch wide; formed with 0.04-inch-thick, galvanized-steel sheet complying with ASTM A653, G90 coating designation; with bolted connections and 5/16-inch-diameter bolts.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.

B. Examine acoustical panels before installation. Reject acoustical panels that are wet, moisture damaged, or mold damaged.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders unless otherwise indicated, and comply with layout shown on reflected ceiling plans.

B. Layout openings for penetrations centered on the penetrating items.

3.3 INSTALLATION

A. Install acoustical panel ceilings according to ASTM C636 and manufacturer's written instructions.

B. Suspend ceiling hangers from building's structural members and as follows:

1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
3. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension-system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
4. Secure wire hangers to ceiling-suspension members and to supports above with a minimum of three tight turns. Connect hangers directly to structure or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
5. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both the structure to which hangers are attached and the type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
6. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, postinstalled mechanical or adhesive anchors, or power-actuated fasteners that extend through forms into concrete.
7. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
8. Do not attach hangers to steel deck tabs.
9. Do not attach hangers to steel roof deck. Attach hangers to structural members.
10. Space hangers not more than 48 inches on center along each member supported directly from hangers unless otherwise indicated; provide hangers not more than 8 inches from ends of each member.
11. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards.

C. Secure bracing wires to ceiling suspension members and to supports with a minimum of four tight turns. Suspend bracing from building's structural members as required for hangers, without attaching to permanent metal forms, steel deck, or steel deck tabs. Fasten bracing wires into concrete with cast-in-place or postinstalled anchors.

D. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.
1. Apply acoustical sealant in a continuous ribbon concealed on back of vertical legs of moldings before they are installed.
2. Screw attach moldings to substrate at intervals not more than 16 inches on center and not more than 3 inches from ends. Miter corners accurately and connect securely.
3. Do not use exposed fasteners, including pop rivets, on moldings and trim.

E. Install suspension-system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.

F. Install acoustical panels with undamaged edges and fit accurately into suspension-system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide precise fit.
1. Arrange directionally patterned acoustical panels as follows:
a. As indicated on reflected ceiling plans.

b. Install panels with pattern running in one direction parallel to long axis of space.
c. Install panels in a basket-weave pattern.

2. For square-edged panels, install panels with edges fully hidden from view by flanges of suspension-system runners and moldings.
3. For reveal-edged panels on suspension-system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
4. For reveal-edged panels on suspension-system members with box-shaped flanges, install panels with reveal surfaces in firm contact with suspension-system surfaces and panel faces flush with bottom face of runners.
5. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.
6. Install hold-down clips in areas indicated; space according to panel manufacturer's written instructions unless otherwise indicated.
7. Install clean-room gasket system in areas indicated, sealing each panel and fixture as recommended by panel manufacturer's written instructions.
8. Protect lighting fixtures and air ducts according to requirements indicated for fire-resistance-rated assembly.

## 3.4 ERECTION TOLERANCES

A. Suspended Ceilings: Install main and cross runners level to a tolerance of 1/8-inch in 12 feet, non-cumulative.
B. Moldings and Trim: Install moldings and trim to substrate and level with ceiling suspension system to a tolerance of 1/8-inch in 12 feet, non-cumulative.

## 3.5 CLEANING

A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension-system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage.
B. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION

# SECTION 09 91 23 - INTERIOR PAINTING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Surface preparation and the application of paint systems on:
      a. Concrete.
      b. Steel.
      c. Galvanized metal.
      d. Aluminum (not anodized or otherwise coated).
      e. Gypsum board.
      f. Plywood.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 09 91 13 "Exterior Painting" for surface preparation and the application of paint systems on exterior substrates.

### 1.2 DEFINITIONS

A. Gloss Level 1: Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D523, a matte flat finish.

B. Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D523, a high-side sheen flat, velvet-like finish.

C. Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D523, an eggshell finish.

D. Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D523, a satin-like finish.

E. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523, a semi-gloss finish.

F. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D523, a gloss finish.

### 1.3 ACTION SUBMITTALS

A. Product Data: For each type of product. Include preparation requirements and application instructions.

B. Product List: For each product indicated, include the following:
   1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
   2. VOC content.

### 1.4 DELIVERY, STORAGE, AND HANDLING

A. Delivery and Handling: Deliver products to Project Site in an undamaged condition in manufacturer's original sealed containers, complete with labels and instructions for handling, storing, unpacking, protecting, and installing. Packaging shall bear the manufacturer's label with the following information:
   1. Product name and type (description).
   2. Batch date.

3. Color number.
4. VOC content.
5. Environmental handling requirements.
6. Surface preparation requirements.
7. Application instructions.

B. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 degrees F.
1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.5 FIELD CONDITIONS

A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 degrees F.
B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 degrees F above the dew point; or to damp or wet surfaces.
C. Lead Paint: It is not expected that lead paint will be encountered in the Work.
1. If suspected lead paint is encountered, do not disturb; immediately notify Engineer and Owner.

**PART 2 - PRODUCTS**

2.1 MANUFACTURERS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Sherwin-Williams Company products indicated or comparable product from one of the following:
1. Benjamin Moore & Co.
2. Kwal, Division of Sherwin-Williams.
3. PPG Engineerural Finishes, Inc.
4. Kelly Moore.
5. Dunn Edwards.

B. Source Limitations: Obtain paint materials from single source from single listed manufacturer.
1. Manufacturer's designations listed on a separate color schedule are for color reference only and do not indicate prior approval.

2.2 PAINT, GENERAL

A. Standards: Provide products that comply with manufacturer's premium first quality standards indicated and like VOC limits.
B. Material Compatibility:
1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

C. Colors: As selected by Engineer from manufacturer's full range.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers. Where acceptability of substrate conditions is in question, apply samples and perform in-situ testing to verify compatibility, adhesion, and film integrity of new paint application.
   1. Report, in writing, conditions that may affect application, appearance, or performance of paint.

B. Substrate Conditions:
   1. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
      a. Concrete: Twelve percent.
      b. Masonry (Clay and CMU): Twelve percent.
      c. Wood: Fifteen percent.
      d. Gypsum Board: Twelve percent.
      e. Plaster: Twelve percent.
   2. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
   3. Plaster Substrates: Verify that plaster is fully cured.
   4. Spray-Textured Ceiling Substrates: Verify that surfaces are dry.

C. Proceed with coating application only after unsatisfactory conditions have been corrected; application of coating indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.

B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
   1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.

C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
   1. Remove incompatible primers and re-prime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

D. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer but not less than the following:
   1. SSPC-SP 2, "Hand Tool Cleaning."
   2. SSPC-SP 3, "Power Tool Cleaning."
   3. SSPC-SP 7/NACE No. 4, "Brush-off Blast Cleaning."
   4. SSPC-SP 11, "Power Tool Cleaning to Bare Metal."

E. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.

F. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.

G. Aluminum Substrates: Remove loose surface oxidation.

## 3.3 APPLICATION

A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."
   1. Use applicators and techniques suited for paint and substrate indicated.
   2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
   3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
   4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
   5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.

B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.

C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.

D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
   1. Paint the following Work where exposed in equipment rooms:
      a. Equipment, including panelboards.
      b. Uninsulated metal piping.
      c. Uninsulated plastic piping.
      d. Pipe hangers and supports.
      e. Metal conduit.
      f. Plastic conduit.
      g. Tanks that do not have factory-applied final finishes.
   2. Paint the following Work where exposed in occupied spaces:
      a. Equipment, including panel boards.
      b. Uninsulated metal piping.
      c. Uninsulated plastic piping.
      d. Pipe hangers and supports.
      e. Metal conduit.
      f. Plastic conduit.
      g. Other items as directed by Engineer.
   3. Paint portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets that are visible from occupied spaces.

## 3.4 FIELD QUALITY CONTROL

A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
   1. Contractor shall touch up and restore painted surfaces damaged by testing.
   2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

## 3.5 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project Site.
B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
C. Protect Work of other trades against damage from paint application. Correct damage to Work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Engineer, and leave in an undamaged condition.
D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

## 3.6 INTERIOR PAINTING SCHEDULE

A. Concrete: Walls and Ceilings, Poured Concrete, Precast Concrete, Unglazed Brick, Cement Board, Tilt-Up, Cast-in-Place including Plaster Walls and Ceilings.
   1. Latex Systems:
      a. Eg-Shel / Satin Finish:
         1) First Coat: S-W Loxon Concrete and Masonry Primer Sealer, LX02W50 (8 mils wet, 3.2 mils dry).
         2) Second Coat: S-W ProMar 200 Zero VOC Latex Eg-Shel B20-2600 Series.
         3) Third Coat; S-W ProMar 200 Zero VOC Latex Eg-Shel B20-2600 Series (4 mils wet, 1.7 mils dry per coat).

B. Wood: Walls, Ceilings, Doors, and Trim.
   1. Latex Systems:
      a. Eg-Shel / Satin Finish:
         1) First Coat: S-W Premium Wall and Wood Primer, B28W8111 (4 mils wet, 1.8 mils dry).
         2) Second Coat: S-W ProClassic Waterborne Acrylic Satin, B20 Series.
         3) Third Coat: S-W ProClassic Waterborne Acrylic Satin, B20 Series (4 mils wet, 1.2 mils dry per coat).

C. Drywall: Walls, Ceilings, Gypsum Board, and similar items.
   1. Latex Systems:
      a. Eg-Shel / Satin Finish:
         1) First Coat: S-W ProMar 200 Zero VOC Interior Latex Primer, B28W2600 (4 mils wet, 1.5 mils dry).
         2) Second Coat: S-W ProMar 200 Zero VOC Latex Eg-Shel, B20-2600 Series.

3) Third: Coat: S-W ProMar 200 Zero VOC Latex Eg-Shel, B20-2600 Series (4 mils wet, 1.7 mils dry per coat).

END OF SECTION

# SECTION 10 28 13 - TOILET ACCESSORIES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Public-use washroom accessories.
   2. Custodial accessories.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 COORDINATION

A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.
B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.
   1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
   2. Include anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
   3. Include electrical characteristics.

## PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
B. Structural Performance: Design accessories and fasteners to comply with the following requirements:
   1. Grab Bars: Installed units are able to resist 250 pounds of force concentrated load applied in any direction and at any point.

2.2 PUBLIC-USE WASHROOM ACCESSORIES

A. Source Limitations: Obtain public-use washroom accessories from single source from single manufacturer.

B. Toilet Tissue (Roll) Dispenser (TTD-1):
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. American Specialties, Inc.
      b. Bobrick Washroom Equipment, Inc.
      c. Bradley Corporation.
   2. Description: Double-roll dispenser.
   3. Mounting: Surface mounted.
   4. Operation: Noncontrol delivery with standard spindle.
   5. Capacity: Designed for 4-1/2- or 5-inch-diameter tissue rolls.
   6. Material and Finish: Stainless steel, ASTM A480 No. 4 finish (satin).
   7. Basis of Design: Bradley model 5263.

C. Paper Towel (Folded) Dispenser/12 Gallon Waste (PTDWR):
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. American Specialties, Inc.
      b. Bobrick Washroom Equipment, Inc.
      c. Bradley Corporation.
   2. Mounting: Surface mounted.
   3. Minimum Capacity: 600 C-fold or 800 multifold towels.
   4. Material and Finish: Stainless steel, ASTM A480 No. 4 finish (satin).
   5. Lockset: Tumbler type.
   6. Refill Indicator: None.
   7. Basis of Design: Bradley model 234-11.

D. Soap Dispenser (SD):
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. American Specialties, Inc.
      b. Bobrick Washroom Equipment, Inc.
      c. Bradley Corporation.
   2. Mounting: Surface mounted.
   3. Description: Designed for manual operation and dispensing soap in liquid form.
   4. Mounting: Vertically oriented, surface mounted.
   5. Lockset: Tumbler type.
   6. Refill Indicator: Window type.
   7. Basis of Design: Bradley model 6562.

E. Grab Bar:
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. American Specialties, Inc.
      b. Bobrick Washroom Equipment, Inc.
      c. Bradley Corporation.
   2. Mounting: Flanges with concealed fasteners.
   3. Material: Stainless steel, 0.05-inch-thick.
      a. Finish: Smooth, ASTM A480 No. 4 finish (satin) on ends and slip-resistant texture in grip area.

4. Outside Diameter: One-and-one-fourth inches.
5. Configuration and Length: As indicated on Drawings.
6. Basis of Design product: Bradley model 832.

F. Mirror Unit (M1):
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
a. American Specialties, Inc.
b. Bobrick Washroom Equipment, Inc.
c. Bradley Corporation.
2. Frame: Stainless steel channel.
a. Corners: Manufacturer's standard.
3. Mounting: Surface mounted.
4. Size: 18 inches by 36 inches.
5. Basis of Design product: Bradley model 780-1836.

G. Hook:
1. Description: Double-prong unit.
2. Mounting: Concealed.
3. Material and Finish: Stainless steel, ASTM A480 No. 4 finish (satin).
4. Basis of Design product: Bradley model 9124.

## 2.3 CUSTODIAL ACCESSORIES

A. Custodial Utility Shelf:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
a. American Specialties, Inc.
b. Bobrick Washroom Equipment, Inc.
c. Bradley Corporation.
2. Description: With exposed edges turned down not less than 1/2-inch and supported by two triangular brackets welded to shelf underside.
3. Size: 30 inches long by 8 inches deep.
4. Material and Finish: Not less than nominal 0.05-inch-thick stainless steel, ASTM A480 No. 4 finish (satin).
5. Basis of Design product: Bradley model 9983.

B. Custodial Mop and Broom Holder:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
a. American Specialties, Inc.
b. Bobrick Washroom Equipment, Inc.
c. Bradley Corporation.
2. Description: Unit with holders,.
3. Mop/Broom Holders: Three, spring-loaded, rubber hat, cam type.
4. Material and Finish: Stainless steel, ASTM A480 No. 4 finish (satin).
5. Basis of Design product: Bradley 9953.

C. Custodial Paper Towel (Folded) Dispenser:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
a. American Specialties, Inc.
b. Bobrick Washroom Equipment, Inc.
c. Bradley Corporation.
2. Mounting: Surface mounted.

3. Minimum Capacity: 400 C-fold or 525 multifold towels.
4. Material and Finish: Stainless steel, ASTM A480 No. 4 finish (satin).
5. Lockset: Tumbler type.
6. Refill Indicator: Pierced slots at sides or front.
7. Basis of Design product: Bradley model 250-15.

2.4 MATERIALS

A. Steel Sheet: ASTM A1008, Designation CS (cold rolled, commercial steel), 0.036-inch-minimum nominal thickness.
B. Galvanized-Steel Sheet: ASTM A653, with G60 hot-dip zinc coating.
C. Galvanized-Steel Mounting Devices: ASTM A153, hot-dip galvanized after fabrication.
D. Fasteners: Screws, bolts, and other devices of same material as accessory unit, unless otherwise recommended by manufacturer or specified in this Section, and tamper and theft resistant where exposed, and of stainless or galvanized steel where concealed.
E. Mirrors: ASTM C1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 millmeters thick.

2.5 FABRICATION

A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.
B. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of twoInsert number keys to Owner's representative.

**PART 3 - EXECUTION**

3.1 INSTALLATION

A. Install accessories according to manufacturer's written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.
   1. Remove temporary labels and protective coatings.
B. Grab Bars: Install to comply with specified structural-performance requirements.
C. Shower Seats: Install to comply with specified structural-performance requirements.

3.2 ADJUSTING AND CLEANING

A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.
B. Clean and polish exposed surfaces according to manufacturer's written instructions.

END OF SECTION

# SECTION 10 44 16 - FIRE EXTINGUISHERS

## PART 1 - GENERAL

1.1 SUMMARY

A. Section includes portable, hand-carried fire extinguishers and mounting brackets for fire extinguishers.
B. Related Requirements:
1. Divisions 01 Specification Sections apply to Work of this Section.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product. Include rating and classification, material descriptions, dimensions of individual components and profiles, and finishes for fire extinguisher and mounting brackets.

1.3 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For fire extinguishers to include in maintenance manuals.

## PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10, "Portable Fire Extinguishers."
B. Fire Extinguishers: Listed and labeled for type, rating, and classification by an independent testing agency acceptable to authorities having jurisdiction.

2.2 PORTABLE, HAND-CARRIED FIRE EXTINGUISHERS

A. Fire Extinguishers: Type, size, and capacity for each mounting bracket (FEB) indicated.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
a. JL Industries, Inc.; a division of the Activar Construction Products Group.
b. Larsens Manufacturing Company.
c. Potter Roemer LLC.
2. Handles and Levers: Manufacturer's standard.
3. Instruction Labels: Include pictorial marking system complying with NFPA 10, Appendix B.
B. Multipurpose Dry-Chemical Type in Steel Container: UL-rated 4-A:60-B:C, 10-pound nominal capacity with monoammonium phosphate-based dry chemical in enameled-steel container.

2.3 MOUNTING BRACKETS (FEB)

A. Mounting Brackets: Manufacturer's standard steel, designed to secure fire extinguisher to wall or structure, of sizes required for types and capacities of fire extinguishers indicated, with red baked-enamel finish.
   1. Manufacturers: Subject to compliance with requirements provide products from the Fire Extinguisher manufacturer or one of the following:
      a. JL Industries, Inc: a division of Activar Construction Products Group.
      b. Larsens Manufacturing Company.
      c. Potter Roemer LLC.
   2. Identification: Letter complying with authorities have jurisdiction for letter style, size, spacing, and location. Locate as indicated by Architect/Engineer.
      a. Identify bracket-mounted fire extinguishers with the words "FIRE EXTINGUISHER" in red letter decals applied to mounting surface.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine fire extinguishers for proper charging and tagging.
   1. Remove and replace damaged, defective, or undercharged fire extinguishers.
B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Install fire extinguishers in locations indicated and in compliance with requirements of authorities having jurisdiction.
B. Mounting Brackets: Fasten mounting brackets to surfaces, square and plumb, at locations indicated.

END OF SECTION

# SECTION 11 40 00 - FOODSERVICE EQUIPMENT

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Owner-Furnished Equipment: Where indicated, Owner will furnish equipment for installation by Contractor.
B. Related Requirements:
   1. Division 01 Specification Sections, apply to this Section.

### 1.2 COORDINATION

A. Coordinate foodservice equipment layout and installation with other Work, including layout and installation of lighting fixtures, HVAC equipment, and fire-suppression system components.
B. Coordinate locations and requirements of utility service connections.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 INSTALLATION

A. Install foodservice equipment level and plumb, according to manufacturer's written instructions.
   1. Connect equipment to utilities.
   2. Provide cutouts in equipment, neatly formed, where required to run service lines through equipment to make final connections.
B. Complete equipment assembly where field assembly is required.
C. Install equipment with access and maintenance clearances that comply with manufacturer's written installation instructions and with requirements of authorities having jurisdiction.
D. Install cabinets and similar equipment on bases in a bed of sealant.
E. Install closure-trim strips and similar items requiring fasteners in a bed of sealant.
F. Install joint sealant in joints between equipment and abutting surfaces with continuous joint backing unless otherwise indicated. Produce airtight, watertight, vermin-proof, sanitary joints.

### 3.2 CLEANING AND PROTECTING

A. After completing installation of equipment, repair damaged finishes.
B. Clean and adjust equipment as required to produce ready-for-use condition.
C. Protect equipment from damage during remainder of the construction period.

END OF SECTION

# SECTION 13 34 19 - METAL BUILDING SYSTEMS

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Structural-steel framing.
   2. Metal roof panels.
   3. Metal wall panels.
   4. Thermal insulation.
   5. Accessories.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project Site.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of metal building system component, including insulation systems.

B. Shop Drawings: Indicate components by others. Include full building plan, elevations, Sections, details, and attachments to other Work, and insulation systems.

C. Delegated Design Submittals: For metal building systems.
   1. Include analysis data indicating compliance with performance requirements and design data signed and sealed by the qualified professional engineer responsible for their preparation.

1.4 WARRANTY

A. Special Warranty on Metal Panel Finishes: Manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
   1. Finish Warranty Period: Twenty years from date of Substantial Completion.

B. Special Weathertightness Warranty for Standing-Seam Metal Roof Panels: Manufacturer agrees to repair or replace standing-seam metal roof panel assemblies that leak or otherwise fail to remain weathertight within specified warranty period.
   1. Warranty Period: Twenty years from date of Substantial Completion.

C. Insulation: Manufacturer agrees to repair or replace system where evidence of degradation or performance is seen within the warranty period.
   1. Warranty Period: Ten years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1. ACI Building Systems, Inc.
   2. Nucor Corporation, Nucor Buildings Group.
   3. Standard Structures, Inc. (SSI).

### 2.2 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 01 40 00 "Quality Requirements," to design metal building system.

B. Structural Performance: Metal building systems to withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated according to procedures in MBMA's "Metal Building Systems Manual."
   1. Design Loads: As indicated on Drawings.
   2. Deflection and Drift Limits:
      a. Design metal building system assemblies to withstand serviceability design loads without exceeding deflections and drift limits recommended in AISC Steel Design Guide No. 3 "Serviceability Design Considerations for Steel Buildings."

C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
   1. Temperature Change: 120 degrees F, ambient; 180 degrees F, material surfaces.

D. Structural Performance for Metal Roof and Wall Panels: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E1592:
   1. Wind Loads: As indicated on Drawings.

E. Air Infiltration for Metal Roof Panels: Air leakage of not more than 0.06 cubic feet per minute per square feet when tested according to ASTM E1680 or ASTM E283 at the following test-pressure difference:
   1. Test-Pressure Difference: 1.57 pound force per square feet.

F. Air Infiltration for Metal Wall Panels: Air leakage of not more than 0.06 cubic feet per minutes per square feet when tested according to ASTM E283 at the following test-pressure difference:
   1. Test-Pressure Difference: 1.57 pounds of force per square feet.

G. Water Penetration for Metal Roof Panels: No water penetration when tested according to ASTM E1646 or ASTM E331 at the following test-pressure difference:
   1. Test-Pressure Difference: 2.86 pounds of force per square feet.

H. Water Penetration for Metal Wall Panels: No water penetration when tested according to ASTM E331 at the following test-pressure difference:
   1. Test-Pressure Difference: 2.86 pounds of force per square feet.

I. Thermal Performance for Opaque Elements: Provide the following maximum U-factors and minimum R-values when tested according to ASTM C1363 or ASTM C518:
   1. Roof:
      a. R-Value: Minimum R-19+R-11 LS.
   2. Walls:
      a. R-Value: Minimum R-13+R6.5ci.

## 2.3 METAL ROOF PANELS

A. Basis of Design product is Zee-Lock Panel manufactured by Berridge Manufacturing Co., San Antonio, Texas. Standing Seam Concealed Fastener, Metal Roof Panels: Formed with smooth panel between standing mechanically seamed side lap; designed to be installed by lapping side edges of adjacent panels and mechanically seaming panels to supports with extruded vinyl weatherseal on all continuous ribs.
   1. Material: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, nominal uncoated steel thickness. Prepainted by the coil-coating process to comply with ASTM A755.
      a. Exterior Finish: Kynar 500/Hynar 5000.
      b. Color: Cityscape.
   2. Panel Coverage: Sixteen inches.
   3. Panel Height: Two inches.

## 2.4 METAL WALL PANELS

A. Metal Wall Panel Type-A: Basis of Design product is "M" Panel manufactured by Berridge Manufacturing Co., San Antonio, Texas. Exposed-Fastener, Tapered-Rib, Metal Wall Panels: Formed with raised, trapezoidal major ribs; designed to be installed vertically by lapping side edges of adjacent panels and mechanically attaching panels to supports using exposed fasteners in side laps.
   1. Material: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, nominal uncoated steel thickness. Prepainted by the coil-coating process to comply with ASTM A755.
      a. Exterior Finish: Kynar 500/Hynar 5000.
      b. Color: Cityscape.
   2. Major-Rib Spacing: Six inches on center
   3. Panel Coverage: 36 inches.
   4. Panel Height: 0.75 inches.
   5. Panel Thickness: 22 gauge.

B. Metal Wall Panel Type-B: Basis of Design product is Thin-Line panel manufactured by Berridge Manufacturing Co., San Antonio, Texas. Concealed-Fastener Metal Wall Panels: Formed with smooth finish; designed to be installed vertically by lapping side edges of adjacent panels to supports or solid sheathing using concealed fasteners inside side laps.
   1. Material: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, nominal uncoated steel thickness. Prepainted by the coil-coating process to comply with ASTM A755.
      a. Exterior Finish: Kynar 500/Hynar 5000.
      b. Color: Charcoal Gray.
   2. Panel Coverage: Three and five-eighths inches.
   3. Panel Height: Three-eighths inch.

4. Panel Thickness: 24 gauge.

## 2.5 THERMAL INSULATION

A. Roof Liner Systems: Basis of Design product is the Simple Saver insulation system (with OSHA compliant through fall protection) manufactured by Thermal Design with an installed total roof insulation R-value as listed above and an average installed thickness of 12 inches. Roof system shall be a multi-layer system. A thermal break shall be applied where there is no existing thermal break between metal panel and metal structure.

B. Wall Liner System: Basis of Design product is the Simple Saver insulation system manufactured by Thermal Design with an installed total R-value as listed above and an installed thickness of 8 inches, completely filling cavity between girts. A thermal break shall be applied where there is no existing thermal break between metal panel and metal structure.

## 2.6 ACCESSORIES

A. General: Provide accessories as standard with metal building system manufacturer and as specified. Fabricate and finish accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes. Comply with indicated profiles and with dimensional and structural requirements.
   1. Form exposed sheet metal accessories that are without excessive oil-canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.

B. Roof Panel Accessories: Provide components required for a complete metal roof panel assembly including copings, fasciae, corner units, ridge closures, clips, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal roof panels unless otherwise indicated.

C. Wall Panel Accessories: Provide components required for a complete metal wall panel assembly including copings, fasciae, mullions, sills, corner units, clips, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal wall panels unless otherwise indicated.

D. Flashing and Trim: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.018-inch nominal uncoated steel thickness, prepainted with coil coating; finished to match adjacent metal panels.

E. Gutters: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.018-inch nominal uncoated steel thickness, prepainted with coil coating; finished to match roof fascia and rake trim. Match profile of gable trim, complete with end pieces, outlet tubes, and other special pieces as required. Fabricate in minimum 96-inch-long sections, sized according to SMACNA's "Architectural Sheet Metal Manual."
   1. Gutter Supports: Fabricated from same material and finish as gutters.
   2. Strainers: Bronze, copper, or aluminum wire ball type at outlets.

F. Downspouts: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.018-inch nominal uncoated steel thickness, prepainted with coil coating; finished to match metal wall panels. Fabricate in minimum 10-foot-long sections, complete with formed elbows and offsets.
   1. Mounting Straps: Fabricated from same material and finish as gutters.

G. Simple Saver Insulation Systems accessories:

1. UVMAX Steel Strap, 100 KSI minimum yield high tensile strength steel, galvanized, primed and painted the specified color on the exposed side with clear coat primer on the concealed side.
    a. Size: 0.02-inch by 1inch by continuous length.
    b. Color: White
    c. Fasteners: #12 by 3/4-inch plated self-drilling screws with sealing washers painted to match the specified color for fastening to light gauge steel (up to 12 GA purlins) or #12 by 1-1/4-inch plated self-drilling screws with sealing washers, painted to match the specified color for heavier gauge steel (up to 3/8-inch purlins or bar joists). Always install two fasteners in the end of each strap for safety and to withstand installation stress, and one fastener at all other designated fastening points.
2. Syseal Fabric shall be woven reinforced high-density polyethylene yarns coated on both sides with a continuous polyethylene film. Fabric shall comply with
   ASTM E84 and be Class A compliant with a flame spread index of 25 or less. This material shall be manufactured in large custom pieces by extrusion welding from roll goods. Pieces shall be fabricated to substantially fit the large defined building areas with minimum practical sealing to be done on job site. Fabric shall be folded to allow for rapid pull-out on the strap support system and certified for fall protection by the manufacturer.
    a. Color: Syseal FP (White), roof and walls.
3. Sealant: Simple Saver System G524 High Tack Sealant.
4. Insulation: Fiberglass blanket or batt insulation meeting ASTM C991 Type 1, ASTM E136, and ASTM E84.
5. Fast-R Insulation Hangers: Preformed, rigid insulation hangers for supporting insulation between wall girts or roof purlins where roof pitch is 4:12 or greater. Coiled hangers are not allowed.
6. Thermal Break: 3/16 inch by 3 inch Quik-Stop Trash Free foam tape, closed cell polyethylene foam with pre-applied adhesive film and peel-off backing

## 2.7 FABRICATION

A. General: Design components and field connections required for erection to permit easy assembly.
    1. Mark each piece and part of the assembly to correspond with previously prepared erection drawings, diagrams, and instruction manuals.
    2. Fabricate structural framing to produce clean, smooth cuts and bends. Punch holes of proper size, shape, and location. Members to be free of cracks, tears, and ruptures.
B. Tolerances: Comply with MBMA's "Metal Building Systems Manual" for fabrication and erection tolerances.
C. Primary Framing: Shop fabricate framing components to indicated size and section, with baseplates, bearing plates, stiffeners, and other items required for erection welded into place. Cut, form, punch, drill, and weld framing for bolted field assembly.
D. Secondary Framing: Shop fabricate framing components to indicated size and section by roll forming or break forming, with baseplates, bearing plates, stiffeners, and other plates required for erection welded into place. Cut, form, punch, drill, and weld secondary framing for bolted field connections to primary framing.

E. Metal Panels: Fabricate and finish metal panels at the factory to greatest extent possible by manufacturer's standard procedures and processes as necessary to fulfill indicated performance requirements. Comply with indicated profiles and with dimensional and structural requirements.
   1. Provide panel profile including major ribs and intermediate stiffening ribs, if any, for full length of metal panel.

2.8 SOURCE QUALITY CONTROL

A. Special Inspection: Owner will engage a qualified special inspector to perform source quality control inspections and to submit reports.
   1. Accredited Manufacturers: Special inspections will not be required if fabrication is performed by an IAS AC472-accredited manufacturer approved by authorities having jurisdiction to perform such Work without special inspection.
B. Product will be considered defective if it does not pass tests and inspections.
C. Prepare test and inspection reports.

**PART 3 - EXECUTION**

3.1 METAL PANEL INSTALLATION, GENERAL

A. General: Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.
   1. Field cut metal panels as required for doors, windows, and other openings. Cut openings as small as possible, neatly to size required, and without damage to adjacent metal panel finishes.
      a. Field cutting of metal panels by torch is not permitted unless approved in writing by manufacturer.
   2. Install metal panels perpendicular to structural supports unless otherwise indicated.
   3. Flash and seal metal panels with weather closures at perimeter of openings and similar elements. Fasten with self-tapping screws.
   4. Locate and space fastenings in uniform vertical and horizontal alignment.
   5. Locate metal panel splices over structural supports with end laps in alignment.
   6. Lap metal flashing over metal panels to allow moisture to run over and off the material.
B. Lap-Seam Metal Panels: Install screw fasteners using power tools with controlled torque adjusted to compress EPDM washers tightly without damage to washers, screw threads, or metal panels. Install screws in predrilled holes.
   1. Arrange and nest side-lap joints so prevailing winds blow over, not into, lapped joints. Lap ribbed or fluted sheets one full rib corrugation. Apply metal panels and associated items for neat and weathertight enclosure. Avoid "panel creep" or application not true to line.
C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with corrosion-resistant coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by metal roof panel manufacturer.

D. Joint Sealers: Install gaskets, joint fillers, and sealants where indicated and where required for weatherproof performance of metal panel assemblies. Provide types of gaskets, fillers, and sealants indicated; or, if not indicated, provide types recommended by metal panel manufacturer.
   1. Seal metal panel end laps with double beads of tape or sealant the full width of panel. Seal side joints where recommended by metal panel manufacturer.
   2. Prepare joints and apply sealants to comply with requirements in Section 07 92 00 "Joint Sealants."

## 3.2 METAL ROOF PANEL INSTALLATION

A. General: Provide metal roof panels of full length from eave to ridge unless otherwise indicated or restricted by shipping limitations.
   1. Install ridge caps as metal roof panel Work proceeds.
   2. Flash and seal metal roof panels with weather closures at eaves and rakes. Fasten with self-tapping screws.

B. Standing-Seam Metal Roof Panels: Secure metal roof panels to supports with seamer recommended by manufacturer.
   1. Provide continuous vinyl weatherseal under heads of standing seams on weather side of metal roof panels.
   2. Provide sealant tape at protruding equipment, vents, and accessories.
   3. Apply a continuous ribbon of sealant tape to weather-side surface of fastenings on end laps and on side laps of nesting-type metal panels, on side laps of ribbed or fluted metal panels, and elsewhere as needed to make metal panels weatherproof to driving rains.

C. Metal Fascia Panels: Align bottom of metal panels and fasten with blind rivets, bolts, or self-drilling or self-tapping screws. Flash and seal metal panels with weather closures where fasciae meet soffits, along lower panel edges, and at perimeter of all openings.

## 3.3 METAL WALL PANEL INSTALLATION

A. General: Install metal wall panels in orientation, sizes, and locations indicated on Drawings. Install panels perpendicular to girts, extending full height of building, unless otherwise indicated. Anchor metal wall panels and other components of the Work securely in place, with provisions for thermal and structural movement.
   1. Unless otherwise indicated, begin metal panel installation at corners with center of rib lined up with line of framing.
   2. Shim or otherwise plumb substrates receiving metal wall panels.
   3. When two rows of metal panels are required, lap panels 4 inches minimum.
   4. When building height requires two rows of metal panels at gable ends, align lap of gable panels over metal wall panels at eave height.
   5. Rigidly fasten base end of metal wall panels and allow eave end free movement for thermal expansion and contraction. Predrill panels.
   6. Flash and seal metal wall panels with weather closures at eaves and rakes and at perimeter of all openings. Fasten with self-tapping screws.
   7. Install screw fasteners in predrilled holes.
   8. Install flashing and trim as metal wall panel work proceeds.
   9. Apply elastomeric sealant continuously between metal base channel (sill angle) and concrete, and elsewhere as indicated on Drawings; if not indicated, as necessary for waterproofing.

10. Align bottom of metal wall panels and fasten with blind rivets, bolts, or self-drilling or self-tapping screws.
11. Provide weatherproof escutcheons for pipe and conduit penetrating exterior walls.

B. Metal Wall Panels: Install metal wall panels on exterior side of girts. Attach metal wall panels to supports with fasteners as recommended by manufacturer.

## 3.4 THERMAL INSULATION INSTALLATION

A. General: Install insulation concurrently with metal panel installation, in thickness indicated to cover entire surface, according to manufacturer's written instructions.
1. Set vapor-retarder-faced units with vapor retarder toward warm side of construction unless otherwise indicated. Do not obstruct ventilation spaces except for firestopping.
2. Tape joints and ruptures in vapor retarder, and seal each continuous area of insulation to the surrounding construction to ensure airtight installation.
3. Install factory-laminated, vapor-retarder-faced blankets straight and true in one-piece lengths, with both sets of facing tabs sealed, to provide a complete vapor retarder.
4. Install blankets straight and true in one-piece lengths. Install vapor retarder over insulation, with both sets of facing tabs sealed, to provide a complete vapor retarder.

B. Blanket Roof Insulation: Comply with the following installation method:
1. Install insulation per manufacturer's written instructions.
2. Over-Framing Installation: Extend insulation and vapor retarder over and perpendicular to top flange of secondary framing. Hold in place by metal roof panels fastened to secondary framing.
3. Between-Purlin Installation: Extend insulation and vapor retarder between purlins. Carry vapor-retarder-facing tabs up and over purlin, overlapping adjoining facing of next insulation course and maintaining continuity of retarder. Hold in place with bands and crossbands below insulation.
4. Retainer Strips: Install retainer strips at each longitudinal insulation joint, straight and taut, nesting with secondary framing to hold insulation in place.

C. Blanket Wall Insulation: Fit insulation vertically between girts, impaled on insulation hangers. Fluff insulation to the specified thickness, insuring there are no gaps or voids. Apply vapor retarder over and perpendicular to top flange of secondary framing. Hold in place by metal wall panels fastened to secondary framing.
1. Retainer Strips: Install retainer strips at each longitudinal insulation joint, straight and taut, nesting with secondary framing to hold insulation in place.
2. Seal wall fabric to the roof fabric and to the base angle, or base cee channel as well as the column flanges.
3. Additional straps are installed along the base angle and each column to retain system permanently in place.

## 3.5 ACCESSORY INSTALLATION

A. General: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.
1. Install components required for a complete metal roof panel assembly, including trim, copings, ridge closures, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.

2. Install components for a complete metal wall panel assembly, including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.
3. Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with corrosion-resistant coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by manufacturer.

B. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible and set units true to line and level. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
1. Install exposed flashing and trim that is without excessive oil-canning, buckling, and tool marks and that is true to line and levels indicated with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and to result in waterproof and weather-resistant performance.
2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped or bayonet-type expansion provisions cannot be used or would not be sufficiently weather resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with mastic sealant (concealed within joints).

C. Gutters: Join sections with riveted-and-soldered or lapped-and-sealed joints. Attach gutters to eave with gutter hangers spaced as required for gutter size, but not more than 36 inches on center using manufacturer's standard fasteners. Provide end closures and seal watertight with sealant. Provide for thermal expansion.

D. Downspouts: Join sections with 1-1/2-inch telescoping joints. Provide fasteners designed to hold downspouts securely 1 inch away from walls; locate fasteners at top and bottom and at approximately 60 inches on center in between.
1. Provide elbows at base of downspouts to direct water away from building.
2. Tie downspouts to underground drainage system indicated.

## 3.6 FIELD QUALITY CONTROL

A. Special Inspections: Owner will engage a qualified special inspector to perform field quality control special inspections and to submit reports.

B. Product will be considered defective if it does not pass tests and inspections.

C. Prepare test and inspection reports.

END OF SECTION

# SECTION 22 05 29 - HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Pipe hangers and supports.
   2. Hanger rods.
   3. Equipment curbs.
   4. Formed steel channel.
   5. Equipment bases and supports.

B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCES

A. American Society of Mechanical Engineers:
   1. ASME B31.1 - Power Piping.
   2. ASME B31.5 - Refrigeration Piping.
   3. ASME B31.9 - Building Services Piping.

B. ASTM International:
   1. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
   2. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
   3. ASTM E814 - Standard Test Method for Fire Tests of Through Penetration Fire Stops.
   4. ASTM F708 - Standard Practice for Design and Installation of Rigid Pipe Hangers.

C. American Welding Society:
   1. AWS D1.1 - Structural Welding Code - Steel.

D. FM Global:
   1. FM - Approval Guide, A Guide to Equipment, Materials & Services Approved By Factory Mutual Research For Property Conservation.

E. Manufacturers Standardization Society of the Valve and Fittings Industry:
   1. MSS SP 58 - Pipe Hangers and Supports - Materials, Design and Manufacturer.
   2. MSS SP 69 - Pipe Hangers and Supports - Selection and Application.
   3. MSS SP 89 - Pipe Hangers and Supports - Fabrication and Installation Practices.

### 1.3 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechanical Requirements."

B. Shop Drawings: Indicate system layout with location including critical dimensions, sizes, and pipe hanger and support locations and detail of trapeze hangers.

C. Product Data:
   1. Hangers and Supports: Submit manufacturers catalog data including load capacity.

D. Design Data: Indicate load carrying capacity of trapeze, multiple pipe, and riser support hangers.

E. Manufacturer's Installation Instructions:
   1. Hangers and Supports: Submit special procedures and assembly of components.
F. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with AWS D1.1 for welding hanger and support attachments to building structure.
B. Perform Work in accordance with State and local standards.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing Products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' experience.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Accept materials on site in original factory packaging, labeled with manufacturer's identification.
B. Protect from weather and construction traffic, dirt, water, chemical, and damage, by storing in original packaging.

1.7 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.8 WARRANTY

A. Section 23 05 00 "General Mechanical Requirements."

**PART 2 - PRODUCTS**

2.1 PIPE HANGERS AND SUPPORTS

A. Plumbing Piping - DWV:
   1. Conform to ASME B31.9, ASTM F708, MSS SP58, MSS SP69, or MSS SP89.
   2. Hangers for Pipe Sizes 1/2- to 1-1/2 inch: Malleable iron or Carbon steel, adjustable swivel, split ring.
   3. Hangers for Pipe Sizes 2 inches and Larger: Carbon steel, adjustable, clevis.
   4. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods.
   5. Wall Support for Pipe Sizes 3 inches and Smaller: Cast iron hook.
   6. Wall Support for Pipe Sizes 4 inches and Larger: Welded steel bracket and wrought steel clamp.
   7. Vertical Support: Steel riser clamp.
   8. Floor Support: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
   9. Copper Pipe Support: Copper-plated, carbon-steel adjustable, ring.


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B. Plumbing Piping - Water:
   1. Conform to ASME B31.9, ASTM F708, MSS SP58, MSS SP69, or MSS SP89.
   2. Hangers for Pipe Sizes 1/2- to 1-1/2 inch: Malleable iron or Carbon steel, adjustable swivel, split ring.
   3. Hangers for Cold Pipe Sizes 2 inches and Larger: Carbon steel, adjustable, clevis.
   4. Hangers for Hot Pipe Sizes 2 to 4 inches: Carbon steel, adjustable, clevis.
   5. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods.
   6. Wall Support for Pipe Sizes 3 inches and Smaller: Cast iron hook.
   7. Wall Support for Pipe Sizes 4 inches and Larger: Welded steel bracket and wrought steel clamp.
   8. Vertical Support: Steel riser clamp.
   9. Floor Support for Cold Pipe: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
   10. Floor Support for Hot Pipe Sizes 4 inches and Smaller: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
   11. Copper Pipe Support: Copper-plated, Carbon-steel ring.

2.2 ACCESSORIES

A. Hanger Rods: Mild steel threaded both ends, threaded on one end, or continuous threaded.

2.3 EQUIPMENT CURBS

A. Fabrication: Unless otherwise noted, shall be welded 18 gauge galvanized steel shell and base, mitered 3-inch cant, variable step to match roof insulation, 1-1/2-inch thick insulation, factory installed wood nailer. Provide tapered curbs to match roof slope.

2.4 FORMED STEEL CHANNEL

A. Manufacturers:
   1. B-line, an Eaton business.
   2. Unistrut; Part of Atkore International.
   3. Substitutions: See Section 23 05 00 "General Mechanical Requirements."
B. Product Description: Galvanized 12 gauge thick steel. With holes 1-1/2 inches on center.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verify the existing conditions before starting work.
B. Verify openings are ready to receive sleeves.
C. Verify openings are ready to receive firestopping.

3.2 PREPARATION

A. Obtain permission from Engineer before using powder-actuated anchors.
B. Do not drill or cut structural members without obtaining permission from Engineer.

## 3.3 INSTALLATION - PIPE HANGERS AND SUPPORTS

A. Install in accordance with ASME B31.1, ASME B31.5, ASME 31.9, ASTM F708,MSS SP 58, MSS SP 69, or MSS SP 89.
B. Support horizontal piping as scheduled.
C. Install hangers with minimum 1/2-inch space between finished covering and adjacent work.
D. Place hangers within 12 inches of each horizontal elbow.
E. Use hangers with 1-1/2-inch minimum vertical adjustment.
F. Support horizontal cast iron pipe adjacent to each hub, with 5 feet maximum spacing between hangers.
G. Support vertical piping at every floor. Support vertical cast iron pipe at each floor at hub.
H. Where piping is installed in parallel and at same elevation, provide multiple pipe or trapeze hangers.
I. Support riser piping independently of connected horizontal piping.
J. Provide copper plated hangers and supports for copper piping.
K. Design hangers for pipe movement without disengagement of supported pipe.
L. Prime coat exposed steel hangers and supports. Refer to Section 09 90 00 "Painting and Coating. Hangers and supports located in crawl spaces, pipe shafts, and suspended ceiling spaces are not considered exposed.
M. Provide clearance in hangers and from structure and other equipment for installation of insulation. Refer to Section 23 07 05 "HVAC and Plumbing Insulation."

## 3.4 INSTALLATION - EQUIPMENT BASES AND SUPPORTS

A. Provide housekeeping pads of concrete, minimum 4 inches thick and extending 6 inches beyond supported equipment. Refer to Section 03 30 00 "Cast-In-Place Concrete."
B. Using templates furnished with equipment, install anchor bolts, and accessories for mounting and anchoring equipment.
C. Construct supports of steel members, formed steel channel, or steel pipe and fittings. Brace and fasten with flanges bolted to structure.
D. Provide rigid anchors for pipes after vibration isolation components are installed.

## 3.5 INSTALLATION - FLASHING

A. Provide flexible flashing and metal counterflashing where piping penetrates weather or waterproofed walls, floors, and roofs.
B. Flash vent and soil pipes projecting 3 inches minimum above finished roof surface with lead worked 1-inch minimum into hub, 8 inches minimum clear on sides with
24- by 24-inch sheet size. For pipes through outside walls, turn flanges back into wall and caulk, metal counter-flash, and seal.
C. Flash floor drains in floors with topping over finished areas with lead, 10 inches clear on sides with minimum 36- by 36-inch sheet size. Fasten flashing to drain clamp device.
D. Seal floor drains watertight to adjacent materials.
E. Adjust storm collars tight to pipe with bolts; caulk around top edge. Use storm collars above roof jacks. Screw vertical flange section to face of curb.

## 3.6 FIELD QUALITY CONTROL

A. Inspect installed firestopping for compliance with specifications and submitted schedule.

3.7 CLEANING

A. Clean adjacent surfaces of firestopping materials.

3.8 PROTECTION OF FINISHED WORK

A. Protect adjacent surfaces from damage by material installation.

3.9 SCHEDULES

A. Pipe Hanger Spacing:

| Pipe Size (inches) | Max. Hanger Spacing (feet) | Hanger Rod Diameter (inches) |
|---|---|---|
| 1/2 | 6 | 3/8 |
| 3/4 | 6 | 3/8 |
| 1 | 6 | 3/8 |
| 1 1/4 | 6 | 3/8 |
| 1 1/2 | 10 | 3/8 |
| 2 | 10 | 3/8 |
| 2 1/2 | 10 | 1/2 |
| 3 | 10 | 1/2 |
| 4 | 10 | 5/8 |
| 6 | 10 | 3/4 |
| 8 | 10 | 3/4 |
| PVC (all sizes) | 4 | 3/8 |
| C.I. Bell and Spigot (or No-Hub) and at Joints | 5 | 5/8 |

END OF SECTION

# SECTION 22 11 00 - FACILITY WATER DISTRIBUTION

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
1. Domestic water piping, within 5 feet of building.
2. Domestic water piping, above grade.
3. Unions and flanges.
4. Valves.
5. Pressure gauges.
6. Pressure gage taps.
7. Thermometers.
8. Relief valves.
9. Strainers.
10. Water hammer arrestors.
11. Mixing valves.
12. Diaphragm-type compression tanks.

B. Related Sections:
1. Division 01 Specification Sections apply to Work of this Section.
2. Section 03 30 00 "Cast-In-Place Concrete:" Execution requirements for placement of concrete house keeping pads specified by this section.
3. Section 22 05 29 "Hangers and Supports" for Plumbing Piping and Equipment: Product requirements for pipe hangers and supports for placement by this section.
4. Section 23 07 05 "HVAC and Plumbing Insulation." Product and execution requirements for pipe insulation.
5. Division 26 Specification Sections for execution requirements for electric connections to equipment specified by this Section.

### 1.2 REFERENCES

A. American National Standards Institute:
1. ANSI Z21.22 - Relief Valves for Hot Water Supply Systems.

B. American Society of Mechanical Engineers:
1. ASME B16.18 - Cast Copper Alloy Solder Joint Pressure Fittings.
2. ASME B16.22 - Wrought Copper and Copper Alloy Solder Joint Pressure Fittings.
3. ASME B16.26 - Cast Copper Alloy Fittings for Flared Copper Tubes.
4. ASME B31.9 - Building Services Piping.
5. ASME B40.1 - Gauges - Pressure Indicating Dial Type - Elastic Element.
6. ASME Section VIII - Boiler and Pressure Vessel Code - Pressure Vessels.
7. ASME Section IX - Boiler and Pressure Vessel Code - Welding and Brazing Qualifications.

C. American Society of Sanitary Engineering:
1. ASSE 1010 - Performance Requirements for Water Hammer Arresters.
2. ASSE 1012 - Performance Requirements for Backflow Preventer with Intermediate Atmospheric Vent.
3. ASSE 1013 - Performance Requirements for Reduced Pressure Principle Backflow Preventers and Reduced Pressure Fire Protection Principle Backflow Preventers.

4. ASSE 5013 - Performance Requirements for Reduced Pressure Principle Backflow Preventers (RP) and Reduced Pressure Fire Protection Principle Backflow Preventers (RFP).
5. ASSE 5015 - Performance Requirements for Testing Double Check Backflow Prevention Assemblies (DC) and Double Check Fire Protection Backflow Prevention Assemblies (RPDF).

D. ASTM International:
1. ASTM A395 - Standard Specification for Ferritic Ductile Iron Pressure-Retaining Castings for Use at Elevated Temperatures.
2. ASTM A536 - Standard Specification for Ductile Iron Castings.
3. ASTM B32 - Standard Specification for Solder Metal.
4. ASTM B42 - Standard Specification for Seamless Copper Pipe, Standard Sizes.
5. ASTM B88 - Standard Specification for Seamless Copper Water Tube.
6. ASTM B584 - Standard Specification for Copper Alloy Sand Castings for General Applications.
7. ASTM E1 - Standard Specification for ASTM Thermometers.
8. ASTM E77 - Standard Test Method for Inspection and Verification of Thermometers.
9. ASTM F1476 - Standard Specification for Performance of Gasketed Mechanical Couplings for Use in Piping Applications.

E. American Welding Society:
1. AWS A5.8 - Specification for Filler Metals for Brazing and Braze Welding.

F. American Water Works Association:

G. Manufacturers Standardization Society of the Valve and Fittings Industry:
1. MSS SP 58 - Pipe Hangers and Supports - Materials, Design and Manufacturer.
2. MSS SP 67 - Butterfly Valves.
3. MSS SP 69 - Pipe Hangers and Supports - Selection and Application.
4. MSS SP 71 - Cast Iron Swing Check Valves, Flanged and Threaded Ends.
5. MSS SP 80 - Bronze Gate, Globe, Angle and Check Valves.
6. MSS SP 85 - Cast Iron Globe & Angle Valves, Flanged and Threaded.
7. MSS SP 89 - Pipe Hangers and Supports - Fabrication and Installation Practices.
8. MSS SP 110 - Ball Valves Threaded, Socket-Welding, Solder Joint, Grooved and Flared Ends.

H. National Electrical Manufacturers Association:
1. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).

I. Plumbing and Drainage Institute:
1. PDI WH201 - Water Hammer Arrester Standard.

J. Underwriters Laboratories Inc.:
1. UL 393 - Indicating Pressure Gauges for Fire-Protection Service.
2. UL 404 - Gauges, Indicating Pressure, for Compressed Gas Service.

## 1.3 SUBMITTALS

A. Division 01 and Section 01 33 00 "Submittal Procedures."

B. Product Data:
1. Piping: Submit data on pipe materials, fittings, and accessories. Submit manufacturer's catalog information.
2. Valves: Submit manufacturers catalog information with valve data and ratings for each service.
3. Domestic Water Specialties: Submit manufacturers catalog information, component sizes, rough-in requirements, service sizes, and finishes.

4. Pumps: Submit pump type, capacity, certified pump curves showing pump performance characteristics with pump and system operating point plotted. Include NPSH curve when applicable. Include electrical characteristics and connection requirements.

C. Manufacturer's Installation Instructions: Submit installation instructions for pumps, valves and accessories.

1.4 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of valves and equipment.
B. Operation and Maintenance Data: Submit spare parts list, exploded assembly views and recommended maintenance intervals.

1.5 QUALITY ASSURANCE

A. For drinking water service, provide valves complying with NSF 61.
B. Perform Work in accordance with State and local standards.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this section with minimum 3 years' experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Accept valves and equipment on site in shipping containers with labeling in place. Inspect for damage.
B. Provide temporary protective coating on cast iron and steel valves.
C. Provide temporary end caps and closures on piping and fittings. Maintain in place until installation.
D. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the Work, and isolating parts of completed system.

1.8 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.9 WARRANTY

A. Section 23 05 00 "General Mechanical Requirements."

1.10 EXTRA MATERIALS

A. Furnish two packing kits for each size valve, two loose keys for outside hose bibs and hose end vacuum breakers for hose bibs, and two pump seals for each pump model.

## PART 2 - PRODUCTS

2.1 DOMESTIC WATER PIPING, BURIED WITHIN 5 FEET OF BUILDING

A. Copper Tubing: ASTM B88, Type K, annealed.
   1. Fittings: ASME B16.18, cast copper, or ASME B16.22, wrought copper.
   2. Joints: Compression connection or Brazed, AWS A5.8 BCuP silver/phosphorus/copper alloy with melting range 1,190 to 1,480 degrees F.

2.2 DOMESTIC WATER PIPING, ABOVE GRADE

A. Copper Tubing: ASTM B88, Type L, hard drawn.
   1. Fittings: ASME B16.18, cast copper alloy or ASME B16.22, wrought copper and bronze.
   2. Joints: ASTM B32, Alloy Grade Sb5 tin-antimony, or Alloy Grade Sn95 tin-silver, lead free solder
   3. Copper Press Fittings:
      a. Manufacturers:
         1) Viega.
         2) Ridge Tool Company.
      b. Press Fittings: Copper and copper alloy press fittings shall conform to material requirements of ASME B 16.18 or ASME B 16.22 and performance criteria of IAPMO PS117. Sealing elements for press fittings shall be EPDM. Sealing elements shall be factory installed. Press ends shall have SC (Smart Connect™) feature design (leakage path). In ProPress 1/2- to 4-inch dimensions the Smart Connect Feature assures leakage of fluids and/or gases from inside the system past the sealing element of an upressed connection. The function of this feature is to provide the installer quick and easy identification of connections which have not been pressed prior to putting the system into operation.

2.3 UNIONS AND FLANGES

A. Unions for Pipe 2 Inches and Smaller:
   1. Copper Piping: Class 150, bronze unions with soldered.
   2. Dielectric Connections: Union with galvanized or plated steel threaded end, copper solder end, water impervious isolation barrier.
B. Flanges for Pipe 2-1/2 Inches and Larger:
   1. Copper Piping: Class 150, slip-on bronze flanges.
   2. Gaskets: 1/16-inch thick preformed neoprene gaskets.

2.4 BALL VALVES

A. Manufacturers:
   1. Apollo Flow Controls; Conbraco Industries, Inc.
   2. Milwaukee Valve Company.
   3. NIBCO INC.
   4. Watts.

5. Substitutions: Division 01 and Section 23 05 00 "General Mechanical Requirements," substituted products.

B. Two Inches and Smaller: MSS SP 110, 600 psi WOG, bronze, three piece body, chrome plated bronze ball, full port, teflon seats, blow-out proof stem, solder or threaded ends with union, and lever handle.

## 2.5 CHECK VALVES

A. Horizontal Swing Check Valves:
   1. Manufacturers:
      a. Milwaukee Valve Company.
      b. NIBCO INC.
      c. Apollo Flow Controls.
      d. Substitutionss: Division 01 and Section 23 05 00 "General Mechanical Requirements," substituted products.

B. Spring Loaded Check Valves:
   1. Manufacturers:
      a. NIBCO INC.
      b. Milwaukee Valve Colpany.
      c. Subsitution: Division 01 and Sect 23 05 00 "General Mechanical Requirements," substituted products.
   2. Two Inches and Smaller: MSS SP 80, Class 250, bronze body, in-line spring lift check, silent closing, Buna-N disc, integral seat, solder or threaded ends.
   3. Two and One-Half Inches and Larger: MSS SP 71, Class 125, wafer or globe style, cast iron body, bronze seat, center guided bronze disc, stainless steel spring and screws, flanged ends.

## 2.6 PRESSURE GAGES

A. Manufacturers:
   1. Trerice.
   2. Weiss.
   3. Substitutions: Division 01 and Section 23 05 00 "General Mechanical Requirements" for substituted products.

B. Gage: ASME B40.1, UL 404 with bourdon tube, rotary brass movement, brass socket, front calibration adjustment, black scale on white background.
   1. Case: Cast aluminum.
   2. Bourdon Tube: Phosphor bronze.
   3. Dial Size: 4-1/2-inch diameter.
   4. Mid-Scale Accuracy: 1 percent.
   5. Scale: Psi.

## 2.7 PRESSURE GAUGE TAPS

A. Manufacturers:
   1. Trerice.
   2. Weiss.
   3. Substitutions: Division 01 and Section 23 05 00 "General Mechanical Requirements." substituted products.

B. Ball Valve: Brass, 1/4-inch NPT for 250 psi.

## 2.8 STEM TYPE THERMOMETERS

A. Manufacturers:
   1. Trerice.
   2. Weiss.
   3. Substitutions: Division 01 and Section 23 05 00 "General Mechanical Requirements." substituted products.

B. Thermometer: ASTM E1, red appearing mercury, lens front tube, cast aluminum case with enamel finish.
   1. Size: 9 inch scale.
   2. Window: Clear Lexan.
   3. Stem: Brass, 3/4-inch NPT, 3-1/2 inches long.
   4. Accuracy: 2 percent.
   5. Calibration: Degrees F.

## 2.9 RELIEF VALVES

A. Pressure Relief:
   1. Bronze body, Teflon seat, steel stem and springs, automatic, direct pressure actuated at maximum 60 psi, UL listed for fuel oil, capacities ASME certified and labeled.

B. Temperature and Pressure Relief:
   1. ANSI Z21.22 certified, bronze body, teflon seat, stainless steel stem and springs, automatic, direct pressure actuated, temperature relief maximum 210 degrees F, capacity ASME certified and labeled.

## 2.10 STRAINERS

A. Manufacturers:
   1. Watts.
   2. Zurn Industries, LLC.
   3. Substitutions: Division 01 and Section 23 05 00 "General Mechanical Requirements." substituted products.

B. Two inches and Smaller: Threaded brass body for 175 psi CWP, Y pattern with 1/32-inch stainless steel perforated screen.

C. One and One-Half Inches to 4 Inches: Class 125, flanged iron body, Y pattern with 1/16-inch stainless steel perforated screen.

D. Five Inches and Larger: Class 125, flanged iron body, basket pattern with 1/8-inch stainless steel perforated screen.

## 2.11 WATER HAMMER ARRESTORS

A. ASSE 1010; stainless steel construction, piston type sized in accordance with PDI WH-201.

B. Pre-charged suitable for operation in temperature range 34 to 250 degrees F and maximum 150 psi working pressure.

2.12 THERMOSTATIC MIXING VALVES

A. Valve: Chrome plated cast brass body, stainless steel or copper alloy bellows, integral temperature adjustment. Conform to ASSE 1070 to temper water to maximum 110 degrees F.

2.13 DIAPHRAGM-TYPE COMPRESSION TANKS

A. Manufacturers:
   1. Amtrol.
   2. Elbi.
   3. Substitutions: Division 01 and Section 23 05 00 "General Mechanical Requirements." substituted products.
B. Construction: Welded steel, tested and stamped in accordance with ASME Section VIII; supplied with National Board Form U-1, rated for working pressure of 125 psig, with flexible diaphragm sealed into tank, and steel legs or saddles.
C. Accessories: Pressure gage and air-charging fitting.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verify excavations are to required grade, dry, and not over-excavated.

3.2 PREPARATION

A. Ream pipe and tube ends. Remove burrs.
B. Remove scale and dirt, on inside and outside, before assembly.

3.3 INSTALLATION - THERMOMETERS AND GAGES

A. Install one pressure gage for each pump, locate taps before strainers and on suction and discharge of pump; pipe to gage.
B. Install gage taps in piping.
C. Install pressure gauges with pulsation dampers. Provide ball valve to isolate each gage.
D. Install thermometers in piping systems in sockets in short couplings. Enlarge pipes smaller than 2-1/2 inches for installation of thermometer sockets. Allow clearance from insulation.
E. Provide instruments with scale ranges selected according to service with largest appropriate scale.

F. Install gauges and thermometers in locations where they are easily read from normal operating level. Install vertical to 45 degrees off vertical.
G. Adjust gauges and thermometers to final angle, clean windows and lenses, and calibrate to zero.

3.4 INSTALLATION - BURIED PIPING SYSTEMS

A. Verify connection size, location, and invert are as indicated on Drawings.
B. Establish elevations of buried piping with not less than 2 feet of cover.

C. Establish minimum separation of water from sanitary sewer piping piping in accordance with local code.

D. Remove scale and dirt on inside of piping before assembly.
E. Excavate pipe trench in accordance with Section 23 05 00 "General Mechanical Requirements."
F. Route pipe in straight line.
G. Install pipe to allow for expansion and contraction without stressing pipe or joints.
H. Install shutoff valves at locations indicated on Drawings in accordance with this Section.
I. Metallic Pipe: Install plastic ribbon tape continuous over top of pipe. 12 inches above pipeline; coordinate with Section 23 05 00 "General Mechanical Requirements.
J. Non-Metallic Pipe: Install trace wire continuous over top of pipe. Buried 12 inches above pipeline; coordinate with Section 23 05 00 "General Mechanical Requirements."
K. Pipe Cover and Backfilling:
    1. Backfill trench in accordance with Section 23 05 00 "General Mechanical Requirements."
    2. Maintain optimum moisture content of fill material to attain required compaction density.
    3. After hydrostatic test, evenly backfill entire trench in accordance with Section 23 05 00 "General Mechanical Requirements."
    4. Evenly and continuously backfill remaining trench depth in uniform layers with backfill material.
    5. Do not use wheeled or tracked vehicles for tamping.

## 3.5 INSTALLATION - ABOVE GROUND PIPING

A. Install non-conducting dielectric connections wherever jointing dissimilar metals.
B. Route piping in orderly manner and maintain gradient. Route parallel and perpendicular to walls.
C. Install piping to maintain headroom without interfering with use of space or taking more space than necessary.
D. Group piping whenever practical at common elevations.
E. Slope piping and arrange systems to drain at low points.
F. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.
G. Provide clearance in hangers and from structure and other equipment for installation of insulation and access to valves and fittings. Refer to Section 22 05 29 "Hangers and Supports."
H. Provide access where valves and fittings are not accessible.

I. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welding.
J. Provide support for utility meters in accordance with requirements of utility companies.
K. Prepare exposed, unfinished pipe, fittings, supports, and accessories ready for finish painting. Refer to Division 09.
L. Install domestic water piping in accordance with ASME B31.9.
M. Sleeve pipes passing through partitions, walls and floors.
N. Install unions downstream of valves and at equipment or apparatus connections.
O. Install valves with stems upright or horizontal, not inverted.
P. Install brass male adapters each side of valves in copper piped system. Solder adapters to pipe.

Q. Install ball or butterfly valves for shut-off and to isolate equipment, part of systems, or vertical risers.
R. Install ball or butterfly valves for throttling, bypass, or manual flow control services.

S. Provide lug end butterfly valves adjacent to equipment when functioning to isolate equipment.
T. Provide spring loaded check valves on discharge of water pumps.
U. Install potable water protection devices on plumbing lines where contamination of domestic water may occur; on boiler feed water lines, janitor rooms, fire sprinkler systems, premise isolation, irrigation systems, flush valves, interior and exterior hose bibs.
V. Pipe relief from valves, back-flow preventers and drains to nearest floor drain.
W. Test backflow preventers in accordance with ASSE.
X. Install water hammer arrestors complete with accessible isolation valve on hot and cold water supply piping as shown on Drawings.
Y. Press Connections: Copper press fittings shall be made in accordance with the manufacturer's installation instructions. The tubing shall be fully inserted into the fitting and the tubing marked at the shoulder of the fitting. The fitting alignment shall be checked against the mark on the tubing to assure the tubing is fully engaged (inserted) in the fitting. The joint shall be pressed using the tool approved by the manufacturer.

## 3.6 FIELD QUALITY CONTROL

A. Test domestic water piping system in accordance with applicable code.

## 3.7 CLEANING

A. Prior to starting work, verify system is complete, flushed and clean.
B. Verify pH of water to be treated is between 7.4 and 7.6 by adding alkali (caustic soda or soda ash) or acid (hydrochloric).
C. Inject disinfectant, free chlorine in liquid, powder and tablet or gas form, throughout system to obtain residual from 50 to 80 milligrams per liter.
D. Bleed water from outlets to obtain distribution and test for disinfectant residual at minimum 15 percent of outlets.
E. Maintain disinfectant in system for 24 hours.
F. When final disinfectant residual tests less than 25 milligrams per liter, repeat treatment.
G. Flush disinfectant from system until residual concentration is equal to incoming water or 1.0 milligrams per liter.
H. Take samples no sooner than 24 hours after flushing, from 10 percent of outlets and from water entry, and analyze in accordance with AWWA C651.

END OF SECTION

# SECTION 22 13 00 - FACILITY SANITARY SEWERAGE

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Sanitary sewer piping buried beyond 5 feet of building.
   2. Sanitary sewer piping above grade.

B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCES

A. American Society of Mechanical Engineers:
   1. ASME A112.14.1 - Backwater Valves.
   2. ASME A112.14.3 - Grease Interceptors.
   3. ASME A112.14.4 - Grease Removal Devices.
   4. ASME A112.21.1 - Floor Drains.
   5. ASME B16.1 - Cast Iron Pipe Flanges and Flanged Fittings.
   6. ASME B16.3 - Malleable Iron Threaded Fittings.
   7. ASME B16.4 - Gray Iron Threaded Fittings.
   8. ASME B16.23 - Cast Copper Alloy Solder Joint Drainage Fittings (DWV).
   9. ASME B16.29 - Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings - DWV.
   10. ASME B31.9 - Building Services Piping.

B. ASTM International:
   1. ASTM A47 - Standard Specification for Ferritic Malleable Iron Castings.
   2. ASTM A53 - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
   3. ASTM A74 - Standard Specification for Cast Iron Soil Pipe and Fittings.
   4. ASTM A234 - Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service.
   5. ASTM A395 - Standard Specification for Ferritic Ductile Iron Pressure-Retaining Castings for Use at Elevated Temperatures.
   6. ASTM A536 - Standard Specification for Ductile Iron Castings.
   7. ASTM A746 - Standard Specification for Ductile Iron Gravity Sewer Pipe.
   8. ASTM B32 - Standard Specification for Solder Metal.
   9. ASTM B42 - Standard Specification for Seamless Copper Pipe, Standard Sizes.
   10. ASTM B43 - Standard Specification for Seamless Red Brass Pipe, Standard Sizes.
   11. ASTM B75 - Standard Specification for Seamless Copper Tube.
   12. ASTM B88 - Standard Specification for Seamless Copper Water Tube.
   13. ASTM B251 - Standard Specification for General Requirements for Wrought Seamless Copper and Copper-Alloy Tube.
   14. ASTM B302 - Standard Specification for Threadless Copper Pipe, Standard Sizes.
   15. ASTM B306 - Standard Specification for Copper Drainage Tube (DWV).
   16. ASTM C564 - Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings.

17. ASTM D1784 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
18. ASTM D1785 - Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
19. ASTM D2235 - Standard Specification for Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings.
20. ASTM D2241 - Standard Specification for Polyethylene (PE) Plastic Pipe (SIDR-PR) Based on Controlled Inside Diameter.
21. ASTM D2464 - Standard Specification for Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80.
22. ASTM D2466 - Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40.
23. ASTM D2467 - Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80.
24. ASTM D2564 - Standard Specification for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems.
25. ASTM D2665 - Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings.
26. ASTM D2729 - Standard Specification for Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
27. ASTM D2855 - Standard Practice for Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings.
28. ASTM D3034 - Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
29. ASTM F477 - Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
30. ASTM F708 - Standard Practice for Design and Installation of Rigid Pipe Hangers.
31. ASTM F1476 - Standard Specification for Performance of Gasketed Mechanical Couplings for Use in Piping Applications.

C. Cast Iron Soil Pipe Institute:
1. CISPI 301 - Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications.
2. CISPI 310 - Specification for Coupling for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications.

D. Manufacturers Standardization Society of the Valve and Fittings Industry:
1. MSS SP 58 - Pipe Hangers and Supports - Materials, Design and Manufacturer.
2. MSS SP 69 - Pipe Hangers and Supports - Selection and Application.
3. MSS SP 70 - Cast Iron Gate Valves, Flanged and Threaded Ends.
4. MSS SP 71 - Cast Iron Swing Check Valves, Flanged and Threaded Ends.
5. MSS SP 80 - Bronze Gate, Globe, Angle and Check Valves.
6. MSS SP 89 - Pipe Hangers and Supports - Fabrication and Installation Practices.
7. MSS SP 110 - Ball Valves Threaded, Socket-Welding, Solder Joint, Grooved and Flared Ends.

E. Plumbing and Drainage Institute:
1. PDI G101 - Standard - Testing and Rating Procedure for Grease Interceptors.

## 1.3 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechanical Requirements."
B. Product Data:

1. Piping: Submit data on pipe materials, fittings, and accessories. Submit manufacturers catalog information.
2. Sanitary Drainage Specialties: Submit manufacturers catalog information, component sizes, rough-in requirements, service sizes, and finishes.

C. Manufacturer's Installation Instructions: Submit installation instructions for material and equipment.

D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of equipment and clean-outs.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with State and local standards.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.

B. Installer: Company specializing in performing Work of this Section with minimum 3 years' experience .

1.7 DELIVERY, STORAGE, AND HANDLING

A. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the Work, and isolating parts of completed system.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Do not install underground piping when bedding is wet or frozen.

1.9 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.10 WARRANTY

A. Section 23 05 00 "General Mechanical Requirements" for product warranties.

**PART 2 - PRODUCTS**

2.1 SANITARY SEWER PIPING, BURIED BEYOND 5 FEET OF BUILDING

A. Cast Iron Soil Pipe: ASTM A74, service weight, bell and spigot ends.
1. Fittings: Cast iron, ASTM A74.
2. Joints: Hub-and-spigot, CISPI HSN compression type with ASTM C564, neoprene gaskets or lead and oakum.

B. PVC Pipe: ASTM D2729, polyvinyl chloride (PVC) material, bell and spigot solvent sealed ends.
1. Fittings: PVC, ASTM D2729.

2. Joints: ASTM D2855, solvent weld with ASTM D2564 solvent cement.

C. PVC Pipe: ASTM D3034, Type PSM, polyvinyl chloride (PVC) material, bell, and spigot style rubber ring sealed gasket joint.
   1. Fittings: PVC, ASTM D3034.
   2. Joints: ASTM F477, elastomeric gaskets.

D. PVC Pipe: ASTM D1785, Schedule 40, polyvinyl chloride (PVC) material, bell and spigot style solvent sealed joint ends.
   1. Fittings: ASTM D2466, Schedule 40, PVC .
   2. Joints: ASTM D2855, solvent weld with ASTM D2564 Solvent cement.

E. Plastic Pipe: ASTM D2665, polyvinyl chloride (PVC) material.
   1. Fittings: PVC, ASTM D2665.
   2. Joints: ASTM D2855, solvent weld with ASTM D2564 solvent cement.

2.2 SANITARY SEWER PIPING, ABOVE GRADE

A. Cast Iron Pipe: ASTM A74, service weight.
   1. Fittings: Cast iron, ASTM A74.
   2. Joints: ASTM C564, rubber gasket joint devices or lead and oakum.

B. Cast Iron Pipe: CISPI 301, hub-less.
   1. Fittings: Cast iron, CISPI 301.
   2. Joints: CISPI 310, neoprene gaskets and stainless steel clamp-and-shield assemblies.

C. Copper Tube: ASTM B306, DWV ASTM B88 ASTM B251 Type L.
   1. Fittings: ASME B16.23, cast bronze, or ASME B16.29, wrought copper.
   2. Joints: Solder, lead free, ASTM B32,95-5 tin-antimony, or tin and silver, with melting range 430 to 535 degrees F.

D. PVC Pipe: ASTM D2729, polyvinyl chloride (PVC) material.
   1. Fittings: ASTM D2729, PVC.
   2. Joints: ASTM D2855, solvent weld with ASTM D2564 solvent cement.

E. PVC Pipe: ASTM D2665, polyvinyl chloride (PVC) material.
   1. Fittings: ASTM D2665, PVC.
   2. Joints: ASTM D2855, solvent weld with ASTM D2564 solvent cement.

F. PVC Pipe: ASTM D1785 Schedule 40 , polyvinyl chloride (PVC) material.
   1. Fittings: ASTM D2466, Schedule 40, PVC .
   2. Joints: ASTM D2855, solvent weld with ASTM D2564 Solvent cement.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify excavations are to required grade, dry, and not over-excavated.

3.2 PREPARATION

A. Ream pipe and tube ends. Remove burrs.
B. Remove scale and dirt, on inside and outside, before assembly.
C. Prepare piping connections to equipment with flanges or unions.
D. Keep open ends of pipe free from scale and dirt. Protect open ends with temporary plugs or caps.

## 3.3 INSTALLATION - HANGERS AND SUPPORTS

A. Pipe Hangers and Supports:
   1. Install in accordance with Section 22 05 29 "Hangers and Supports."

## 3.4 INSTALLATION - BURIED PIPING SYSTEMS

A. Verify connection to existing piping system size, location, and invert are as indicated on Drawings.
B. Establish elevations of buried piping with not less than 2 feet of cover.
C. Establish minimum separation of sanitary sewer from other services piping in accordance with local code.
D. Remove scale and dirt on inside of piping before assembly.
E. Excavate pipe trench in accordance with Section 23 05 00 "General Mechanical Requirements."
F. Install pipe to elevation as indicated on Drawings.
G. Route pipe in straight line.
H. Metallic Piping: Install plastic ribbon tape continuous over top of pipe. above pipe. Refer to Section 23 05 53 "Identification for HVAC and Plumbing Piping and Equipment.
I. Non-Metalic Piping: Install trace wire continuous over top of pipe. Refer to Section Section 23 05 00 "General Mechanical Requirements."
J. Pipe Cover and Backfilling:
   1. Backfill trench in accordance with Section 23 05 00 "General Mechanical Requirements."

## 3.5 INSTALLATION - ABOVE GROUND PIPING

A. Establish invert elevations, slopes for drainage as required by local code. Maintain gradients.
B. Extend cleanouts to finished floor or wall surface. Lubricate threaded cleanout plugs with mixture of graphite and linseed oil. Provide clearances at cleanout for snaking drainage system.
C. Encase exterior cleanouts in concrete flush with grade.
D. Install floor cleanouts at elevation to accommodate finished floor.
E. Provide non-conducting dielectric connections wherever jointing dissimilar metals.

F. Route piping in orderly manner and maintain gradient. Route parallel and perpendicular to walls.
G. Install piping to maintain headroom. Do not spread piping, conserve space.
H. Group piping whenever practical at common elevations.
I. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.
J. Provide clearance in hangers and from structure and other equipment for installation of insulation.
K. Provide access where valves and fittings are not accessible.
L. Install piping penetrating roofed areas to maintain integrity of roof assembly.
M. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welding.
N. Prepare exposed, unfinished pipe, fittings, supports, and accessories ready for finish painting. Refer to Division 09 Finishes.

O. Install bell and spigot pipe with bell end upstream.
P. Sleeve pipes passing through partitions, walls and floors.
Q. Install firestopping at fire rated construction perimeters and openings containing penetrating sleeves and piping. Refer to Division 07.
R. Support cast iron drainage piping at every joint.

3.6 FIELD QUALITY CONTROL

A. Test sanitary waste and vent piping system in accordance with applicable code.

END OF SECTION

# SECTION 22 33 00 - ELECTRIC DOMESTIC WATER HEATERS

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Electric water heaters.
B. Related Sections:
   1. Division 01 Specification Section apply to Work of this Section.
   2. Section 03 30 00 "Cast-in-Place Concrete:" Execution requirements for concrete housekeeping pads specified by this Section.
   3. Section: 22 11 00 "Facility Water Distribution:" Supply connections to domestic water heaters.
   4. Section 26 05 91 "Equipment Wiring Systems:" Electric connection specified by this Section.

1.2 REFERENCES

A. American Society of Heating, Refrigerating and Air-Conditioning Engineers:
   1. ASHRAE 90.1 - Energy Standard for Buildings Except Low-Rise Residential Buildings.
B. American Society of Mechanical Engineers:
   1. ASME PTC 25 - Pressure Relief Devices.
   2. ASME Section VIII - Boiler and Pressure Vessel Code - Pressure Vessels.

1.3 SUBMITTALS

A. Division 01 and Section 01 33 00 "Submittal Procedures."
B. Product Data: Submit dimensioned Drawings of water heaters indicating components and connections to other equipment and piping. Submit electrical characteristics and connection locations.
C. Manufacturer's Installation Instructions: Submit mounting and support requirements.

1.4 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: Submit replacement part numbers and availability.

1.5 QUALITY ASSURANCE

A. Water Heater Performance Requirements: Equipment efficiency not less than prescribed by ASHRAE 90.1.
B. Perform Work according to State and local standards.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' documented experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Accept water heaters on Site in original labeled cartons. Inspect for damage.
B. Protect tanks with temporary inlet and outlet caps. Maintain caps in place until installation.

1.8 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.9 WARRANTY

A. Refer to Division 01 and Section 23 05 00 "General Mechanical Requirements."
B. Furnish 3 year manufacturer warranty for domestic water heaters.

**PART 2 - PRODUCTS**

2.1 ELECTRIC WATER HEATERS

A. Manufacturers:
   1. A. O. Smith Corporation.
   2. State Industries.
   3. Keltech.
   4. Substitutions: Section 23 05 00 "General Mechanical Requirements."
B. Type: Automatic, electric, vertical storage.
C. Tank: Glass lined welded steel, thermally insulated with minimum 1-inch-thick glass fiber; encased in corrosion-resistant steel jacket with baked-on enamel finish.
D. Controls: Automatic water thermostat with temperature range from 120 to 170 degrees F, flanged or screw-in nichrome elements, enclosed controls and electrical junction box.
E. Accessories: Brass water connections and dip tube, drain valve, magnesium anode, and ASME temperature and pressure relief valve.

**PART 3 - EXECUTION**

3.1 INSTALLATION

A. Maintain manufacturer's recommended clearances around and over water heaters.
B. Install water heater on concrete housekeeping pad, minimum 3-1/2 inches high and 6 inches larger than water heater base on each side.
C. Connect domestic hot and cold water piping to supply and return water heater connections.

D. Install the following piping accessories.
   1. On Supply:
      a. Shutoff valve.
   2. On Return:
      a. Thermometer well and thermometer.
      b. Shutoff valve.
E. Install discharge piping from relief valves and drain valves to nearest floor drain.
F. Install water heater trim and accessories furnished loose for field mounting.

G. Install electrical devices furnished loose for field mounting.
H. Install control wiring between water heater control panel and field mounted control devices.
I. Install Work according to State and local standards.

END OF SECTION

# SECTION 22 40 00 - PLUMBING FIXTURES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Water closets.
   2. Lavatories.
   3. Drains.
B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechanical Requirements."
B. Product Data: Submit catalog illustrations of fixtures, sizes, rough-in dimensions, utility sizes, trim, and finishes.
C. Manufacturer's Installation Instructions: Submit installation methods and procedures.
D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.3 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: Submit fixture, trim, exploded view, and replacement parts lists.

1.4 QUALITY ASSURANCE

A. Perform Work according to State and local standards.
B. Provide products requiring electrical connections listed and classified by Underwirters Laboratory Inc., as suitable for purpose specified and indicated.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' experience.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Accept fixtures on-site in factory packaging. Inspect for damage.
B. Protect installed fixtures from damage by securing areas and by leaving factory packaging in place to protect fixtures and prevent use.

## PART 2 - PRODUCTS

2.1 FIXTURES

A. Refer to Drawings Plumbing Fixture Schedule for fixture make, model numbers, and type.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify walls and floor finishes are prepared and ready for installation of fixtures.
B. Verify electric power is available and of correct characteristics.
C. Confirm millwork is constructed with adequate provision for installation of counter top lavatories and sinks.

3.2 PREPARATION

A. Rough-in fixture piping connections according to minimum sizes indicated in fixture rough-in schedule for particular fixtures.

3.3 INSTALLATION

A. Install Work according to State and local standards.
B. Install each fixture with trap, easily removable for servicing and cleaning.
C. Provide chrome-plated rigid or flexible supplies to fixtures with stops, reducers, and escutcheons.
D. Install components level and plumb.
E. Install and secure fixtures in place with wall supports or carriers and bolts.
F. Seal fixtures to wall and floor surfaces with sealant as specified in Division 07, color to match fixture.

3.4 INTERFACE WITH OTHER PRODUCTS

A. Review millwork Shop Drawings. Confirm location and size of fixtures and openings before rough in and installation.

3.5 ADJUSTING

A. Adjust stops or valves for intended water flow rate to fixtures without splashing, noise, or overflow.

3.6 CLEANING

A. Clean plumbing fixtures and equipment.

3.7 PROTECTION OF INSTALLED CONSTRUCTION

A. Do not permit use of fixtures before final acceptance.

END OF SECTION

# SECTION 23 05 00 - GENERAL MECHANICAL REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 DESCRIPTION

A. Work covered by this Division shall consist of furnishing all labor, equipment, supplies, and materials and in performing all operations necessary for the installation of complete and operating mechanical systems as required by these Specifications and/or shown on the Drawings, subject to the terms and conditions of the Contract. The Work shall also include the completion of such mechanical and electrical details not mentioned or shown which are necessary for the successful operation of all systems described on the Drawings or required by these Specifications; this includes the furnishing all materials for the filling the systems to make them operable, including water, refrigerant, oil, and grease. Prove satisfactory operation of all equipment and controls to Engineer on request.

B. Work Not Included: Certain labor, material, and equipment may be furnished and/or installed under other Divisions of these Specifications. This Contractor shall coordinate with other trades and arrange his Work to make the part fit together. The following items are to be accomplished under other Divisions of these Specifications:
   1. Temporary Heat: Refer to paragraph in this Section.
   2. Temporary Water and Toilet: Refer to General Conditions.
   3. Roof Curbs: Refer to paragraph in this Section.
   4. Electrical Equipment and Wiring: Refer to paragraph in this Section.
   5. Concrete: Refer to paragraph in this Section.

C. Equipment Furnished by Owner: Rough-in services pipes to locations as required by Engineerural and Mechanical Drawings and equipment Shop Drawings. Provide service valves on all pipes except waste and vent pipes. Final connection to equipment will be made by this Contractor.

### 1.3 BIDDING

A. All mechanical equipment shall be new unless specified otherwise in the Specifications or on the Drawings.

B. All Bids must be based only on the equipment and materials as scheduled on the Drawings and as specified or on equivalent equipment and materials. Any Contractor who assumes equivalence of products and who bases his Proposal on that assumption does so at his own risk.

C. A listing of approved alternative manufacturers does not mean that all products of a particular alternative manufacturer are acceptable alternative to the scheduled items. All fixtures and devices must still be submitted according to the prescribed procedures. In addition, some items that have an important visual affect, e.g., electric water coolers, may be required to receive Owner's or Engineer's approval also.

1.4 EXISTING UTILITIES

A. The Drawings indicate the locations, type, and sizes of various utilities within the Site where known. These utilities are indicated as accurately as possible. If Contractor encounters any utilities during construction which are not shown on the Drawings, they shall ask for written instructions from Engineer. Any relocation or remodeling required will then be directed by a change order. This Contractor shall assume all responsibility for protection of all utilities, shown or not, and for repair required by this construction.

B. Contractor shall verify location, size, elevation, pressure, and any other pertinent data of the existing utilities. Additional costs incurred due to failure to verify such data and to coordinate associated Work with respective utility providers shall not be Owner's responsibility but shall be borne by Contractor.

C. All costs associated with providing utilities including, but not limited to, connection fees, boring under roads, etc., shall be included in Contractor's proposal price, whether such costs are incurred by Contractor or charged by the utility company.

D. Submission of a proposal by Contractor shall be considered an acknowledgment by Contractor of his compliance with this Section.

1.5 CODES, PERMITS, AND FEES

A. Contractor shall comply with all local, State, and national codes and shall pay for all applicable costs, fees, permits, licenses, and inspections for this Division.

1.6 TEMPORARY HEAT

A. Temporary heat will be furnished by General Contractor. Use of the permanent heating system will not be allowed without written authorization from Engineer and Owner. In case the permanent heating system is used for temporary heat, General Contractor shall pay all the costs until acceptance by Owner. Warranty of equipment shall not start until acceptance by Owner.

1.7 DRAWINGS

A. Contract Drawings are diagrammatic only and are not intended to be scaled for dimensions. All dimensions shall be taken from Engineerural Drawings, certified equipment Drawings, and from the structure itself before fabricating and Work. All space requirements and equipment locations shall be verified, coordinated with other trades, as it is the various Contractors' responsibility to install the systems complete in the space provided without extra charges to Owner.

B. It is intended that anything, whether labor and materials, which is usually furnished as part of any equipment specified and which is necessary for operation shall be furnished as part of the Contract without additional cost, whether or not shown or described.

C. All piping in finished areas of the building shall be concealed except where otherwise noted on the Drawings.

D. All equipment shall be installed in accordance with manufacturer's recommendations, unless approval is given in writing by Engineer for deviation.

1.8 REQUIREMENTS OF REGULATORY AGENCIES

A. The mechanical Work shall be performed in strict accordance with the local and State codes, ordinances, and regulations governing the particular Work involved. Furnish, without extra charge, any additional material and labor when and where required to comply with these Rules and Regulations, though the Work is not mentioned in the Specifications or shown on the Drawings. When the Specifications or Drawings call for or describe materials or construction of a better quality or larger sizes than required by the above mentioned Rules and Regulations, the provisions of these Specifications and accompanying Drawings shall take precedence.

1.9 QUALIFICATIONS

A. All mechanics shall be capable journeymen, skilled in the Work assigned to them with licensing required by the inspecting authority. All welders must have been certified within the past 3 years to perform the Work which they are doing.

1.10 WARRANTY

A. All materials and equipment shall be new unless otherwise specified.
B. Guarantee all workmanship, material and equipment and replace any found defective without cost to Owner, for 1 year after final acceptance, as defined in General Conditions.
C. Each warranty for longer than 1 year as described above (that comes with equipment used on the job) shall be passed into Owner in the Operation and Maintenance Manual, along with the dates of start and end of warranty.
D. Refer to General Conditions for additional information regarding specific warranty requirements.

1.11 PROJECT RECORD DOCUMENTS

A. Before final payment, provide Engineer with one clean set of Drawings and Specifications corrected up-to-date as job progress. These documents shall reflect the As-Built conditions. Refer to General Conditions for additional information.

1.12 SUBMITTALS

A. The intent of this Section is to give general submittal information; refer to specific submittal information in the subsequent Mechanical Sections.
B. Sale of Electronic CADD Files:
   1. Refer to Engineerural Specification Section 01 33 00 "Submittal Procedures" OR call the Parkhill, office issuing this Project and request the pricing for electronic files.
C. Within 30 days after award of the Contract, and before orders are placed, Contractor shall submit specific information on list of equipment and principal materials specified. Contractor shall indicate and/or provide names of manufacturers, catalog and model numbers, cut sheets, and such other supplementary information as necessary for evaluation. Submittal shall be electronic using pdf file extension.

D. Requirements for Each Submittal:
   1. Bear a dated stamp or specific written indication that Contractor has reviewed and approved all submittal prior to submission to Engineer.
   2. Have all information deleted by Contractor that pertains to the means and methods of construction or to fabrication by Contractor that pertains to the means and methods of construction or to fabrication, assembly, installation, or erection (approval by Engineer shall not extend to these areas unless specifically noted by Engineer).
   3. Be clearly and SPECIFICALLY marked as to which specific piece of equipment is being submitted, bye use of a permanent marker, stamp, etc., so as to distinguish it from other pieces of equipment that may occur on the same page.
   4. Be clearly marked as to which available options are being submitted that are associated with a piece of equipment.
   5. Be complete with respect to quantities, dimensions, specific performance, materials, and similar data to enable the Engineer to review the proposed equipment.

E. Omission by Contractor of any of the above requirements or submittals will subject submittal to automatic rejection without review.

F. Any submittals received by Engineer that were not requested shall be returned without review of any kind.

G. Installation Instructions: For certain products or systems as identified in subsequent Specifications Sections or on the Drawings, Contractor shall be required to provide copies of manufacturer's installation instructions with the submittal. When required as such, the installation instructions are considered part of the submittal and their omission may result in automatic rejection of the submittal. Where more than one identical device is scheduled, only one set of installation instructions needs to be submitted; e.g., if seven 5-ton split systems air conditions are scheduled, only one 5-ton unit installation instruction needs to be submitted. Similarly, if one set of installation instructions is identified by the manufacturer and on the instructions to be applicable to more than 1 type or size of devices, e.g., if one set of air conditioner instructions is good for 3-, 4-, 5-ton units, then only one instruction set is required for these devices.

## 1.13 SUBSTITUTED PRODUCTS

A. Material or equipment specified by manufacturer's name is being used as a basis of standard, unless otherwise noted. Engineer will be the sole judge on the equivalence of substituted equipment and materials.

B. It shall be Contractor's responsibility to verify that submitted substitute equipment will fit in space available. Contractor's submittal for acceptance of the substitute shall include a written statement of whether or not such acceptance would require any subsequent or associated changes to the Drawings or Specifications. Any such changes shall be described in writing, briefly but complete.

C. Contractor shall be responsible for the costs of any such modifications due to substitution of materials or equipment for that which was specified or scheduled. The cost shall be complete; that is, it shall include the cost effect of any and all other trades.

D. Engineer may request detailed Shop Drawing or plan layouts of mechanical rooms or systems of the substituted equipment.

1.14 SAFETY

A. General: Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work, and Contractor shall comply with all laws governing safety, specifically the "Occupational Safety and Health Standards" and the "Safety and Health Regulations for Construction," state and federal.

B. According to OSHA, a hazardous chemical is any chemical which is a physical hazard or a health hazard. This may include items such as paints, solvents, adhesives, sealants, cleaners, etc. If a Contractor produces, uses, or stores hazardous chemicals at the workplace, then Contractor shall develop, implement, and maintain a hazard communication program in compliance with the latest OSHA requirements. In Projects with multiple tenants in which the building is partially occupied during all or part of the Project, Contractor shall inform the Building Manager or Owner, according to OSHA guidelines, of any hazardous chemicals being produced, stored, or used in the building so that other tenants may be notified. Contractor shall employ required methods of training, information, handling, ventilation, labeling, storing, disposal, and removal of hazardous chemicals.

1.15 LABELING

A. Each device for which an independent testing authority has established a standard shall have affixed a label indicating its compliance and listing. Refer to General Conditions for list of such independent testing authorities.

1.16 SITE VISIT REPORTS

A. During the course of the job, Engineer will make Site visits to observe Work in progress and will subsequently prepare a written Site visit report, which will be sent to Contractor and to whomever else Engineer desires. Contractor shall prepare a written and typed response within 7 calendar days of his receiving the Site visit report. General Contractor shall include in his response the following information.
   1. Date of Site visit by Engineer.
   2. Date of receipt of the Site visit report.
   3. Name and title of the preparer of the response.
   4. An item number referenced to the Site report.
   5. A brief three- or four-word description of the item.
   6. Contractor or Subcontractor affected.
   7. The proposed course of action.
   8. An expected time of completion of the action.

1.17 CUTTING AND PATCHING

A. No joists, beams, girders, columns, slabs, or other structural elements shall be cut, drilled, or altered in any way by Contractor without first obtaining written permission and instructions from Engineer.

B. Where it is necessary to cut through any non-structural elements of walls, floors, or ceilings to permit the installation of any Work under this Contract, or to repair any defects that may appear up to the expiration of the guarantee, such cutting shall be done by Contractor with as little damage as reasonably possible to the element being cut or to adjacent elements.

C. After the necessary Work has been completed, the damage shall be repaired by the respective Contractor, who shall pay all costs of such cutting, repairs, and patching. All patching or sealing of cuts, penetrations, etc., including final appearance of same, shall be done to the approval of Engineer.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

A. All materials shall be new and of specified quality, unless specifically noted otherwise. Materials shall be free from defects. Where manufacturer names are mentioned in the Specifications or on the Drawings, it has been done in order to establish a standard of quality and construction.

B. Contractor will be responsible for transportation of his material to and from the job Site and will be responsible for the storage and protection of his materials and Work until the final acceptance of the job. At the end of each day of Work, each Contractor is responsible for covering or protecting his Work and/or materials that may be susceptible to damage even if such damage is the result of unforeseen causes, e.g., an overnight thunderstorm. Failure to do so will be sufficient cause for rejection of any item in question, and any such item shall be replaced by Contractor at no cost to Owner.

C. Contractor shall verify that all pieces of equipment will fit through available openings in the building and that all equipment can be installed without modification of building structure.

### 2.2 EQUIPMENT SCHEDULE

A. All equipment major items are specified in the equipment schedules on the Drawings and shall be new and furnished complete with all accessories normally supplied with the catalog item listed and all other accessories necessary for a complete and satisfactory installation.

B. Equipment items so noted will require start-up by factory trained personnel. Equipment items so noted will require factory approved service personnel who shall provide all service, including all parts and all labor, as requested by Owner, during the full period of equipment warranty.

### 2.3 EQUIPMENT RATINGS

A. Equipment capacities as scheduled on the Drawings are at Project Site altitude. Capacities of submitted equipment must be corrected for Project Site altitude unless otherwise noted.

### 2.4 WORKMANSHIP

A. The workmanship shall, in all respects, be of the highest grade, and all construction shall be done according to the best practices of the trade. Piping, ducting and conduit shall be concealed unless otherwise noted, and installed square to the building lines. Any Work not meeting this requirement shall be replaced or rebuilt without extra expense to Owner.

2.5 V-BELT DRIVES

A. V-belt drives shall be of fabric and rubber construction of approved manufacture. Multiple belts shall be matched and all belts shall be adjusted to drive the apparatus properly and to prevent slippage and undue wear in starting motor nameplate rating.

2.6 BELTGUARDS

A. Contractor shall provide for each V-belt drive a painted steel belt guard, which shall be constructed around an angle iron frame, securely bolted to the floor or apparatus. The guard shall completely enclose drives and pulleys and be constructed to comply with all safety requirements. Hinged access doors not less than 6- by 6-inch shall be provided for access to motors and fan shaft for test purposes.

2.7 ELECTRICAL WIRING AND CONTROL EQUIPMENT

A. All disconnects, motor starters, relays, wiring, etc. shall comply with all requirements of Section 26 05 00 "Basic Electrical Methods" of the electrical Specifications.
B. Mechanical Contractor must refer to the electrical control equipment and wiring shown on the Electrical Drawings. Any changes or additions required by specified or substituted equipment furnished shall be the complete responsibility of Contractor furnishing the equipment.
C. All electrical equipment characteristics (voltage, etc.) must be VERIFIED by Mechanical Contractor prior to ordering. It is imperative that voltage and phase characteristics are checked with the Electrical Drawings.
D. All motors shall be built in accordance with the current applicable IEEE, ASA, and NEMA standards. All general-purpose motors shall be open drip-proof machines for installation indoors and/or in protected locations. Totally enclosed fan cooled (TEFC) motors shall be used in all areas of exposure to weather or other environmental contamination. Motors shall be rated explosion-proof when located in hazardous atmospheres. Type II weather-protected motors may be used in lieu of TEFC motors on roof fan units and similar equipment. Motors mounted in direct sun shall be provided with a shield to for direct radiation from the sun when the sun is 45 degrees F or greater above the horizon.
E. Unless indicated otherwise, motors shall be NEMA design B with a service factor of 1.15 with 40 degrees C rise and total temperature rise of 65 degrees C ambient and when powered from the system voltage feeding the motor. TEFC motors shall have a service factor of 1.00 with total temperature rise of 65 degrees C in the above conditions. Single-phase motors shall be NEMA Type N split-phase induction motors with built-in thermal protectors. Single-phase motors connected on loads requiring high starting torque shall be capacitor-start induction motors.
F. All motors shall be all copper wound, high power factor, high efficiency motors. Electric motors shall be an energy efficient type as defined in the latest edition of NEMA document number MG1. Motor efficiency shall be made available to Engineer as required.
G. If there is not a separate "Controls Contractor" for this Project, Mechanical Contractor is responsible for providing and installing all control wiring. Wiring and conduit is to be provided and installed as directed under Division 26 Specifications.

## 2.8 EQUIPMENT AND PIPING SUPPORTS

A. All supporting systems for piping, equipment, and materials supported by the building structure shall be submitted to the Engineer for approval prior to purchase and installation.

B. Roof Supports:

1. Manufacturer's installation recommendations vary depending on roof types, but Contractor is responsible for verifying the roof type and adhering strictly to the appropriate set of manufacturer's installation instructions.

## 2.9 ROOF PENETRATIONS

A. Piping:

1. Penetration shall be accomplished with factory-made assemblies designed specifically for the purpose. The use of pitch pans or pitch pockets is not allowed. Contractor shall provide a factory-made penetration assembly as follows:

a. For pipes, conduits, etc., up to 3 inches in diameter that can or are intended to be turned to horizontal after passing through the roof (e.g., small electrical conduit, gas piping, refrigerant lines, water pipes, etc.) the device shall consist of a curb assembly with a welded 18 gauge galvanized steel shell and base, 1-1/2 inches thick 3 pounds per cubic foot rigid insulation, 0.50-inch aluminum or 20 gauge galvanized cap with minimum 3-inch over hang and 1-inch rigid insulation, and 2- x 6-inch wood nailer. Product shall be Custom Curb Model CPC, ThyCurb Model RP-2 with TC-1, 2, or 3 curb, or approved equivalent.

B. Ductwork with Equipment:

1. Each pierce of roof mounted equipment such as exhaust or supply fans, relief or intake hoods, packaged rooftop air conditioners, air handlers, etc., shall be provide and installed with an insulated roof curb designed to mate with the equipment and provide a weatherproof enclosure. In the event that a presinsulated curb is not available, an uninsulated curb is acceptable if Contractor provides and installs field insulation per manufacturer's instructions. Contractor shall provide the roof curb(s) to Roofing Contractor for installation.

C. General:

1. All roof flashing assemblies and roof curbs shall be closely coordinated with other Work through Roofing Contractor to ensure that the flashing, canting, insulation type and location, etc., is correct and appropriate for the particular roof construction type.
2. Each roof curb shall be selected and provided so that the top of the curb shall be level after installation. Provide tapered curb as required to match roof slope. The curb shall provide a minimum clearance of 10 inches between the top of the finished roof surface and the top of the wood nailer, continuous around the curb perimeter.
3. Each roof penetration location shown on the Drawings is approximate. Refer to the Engineerural and Structural Drawings for the structural openings. Refer to "Cutting and Patching" paragraph in this Section of this Specification for more information.
4. Provide each roof curb with other options as scheduled on the Drawings.

2.10 ACCESSIBILITY

A. Access Panels:
1. Access panels shall be provided wherever necessary for possible future replacement, adjustment, or maintenance of operating devices such as machinery, valves, dampers, switches, relays, etc., or to other critical non-operating devices such as pull boxes, inspection parts, gauges, etc. Such access panels shall be provided and install by Contractor, whether or not shown on the Drawings, and shall be brought to the attention of Engineer for approval of type, color, etc. Where access is provided in rated members, the access panels shall be of a type that maintains the integrity of the member penetrated.

B. Access to Equipment:
1. All pipes, tubing, conduit, etc., including but not limited to draining piping of any type, electrical conduit, wiring not in conduit, and pneumatic control tubing shall be installed in such a way so as not to prevent and/or not to make necessary difficult the removal, operation, use, or maintenance of equipment, access panels or doors, pathways (especially in attics or crawlspaces), observation ports, measurement, balancing devices, or junction boxes.
2. If access for these purposes is prevented or made unreasonably difficult in the opinion of Engineer, then Contractor shall make modifications or repairs at no cost to anyone except Contractor. Such modifications or repairs shall be considered neither complete nor adequate until Engineer is satisfied that access for the above purpose is achieved.

2.11 PROTECTION OF PENETRATION

A. All penetrations of fire or smoke barriers shall be sealed, sleeves (if any), insulation (if any), and vibration isolation (if any) that maintain the fire or smoke resistance of the barrier in accordance with the latest edition of NFPA 101 Life Safety Code.
B. Contractor shall verify locations and type of all partitions penetrations from the Drawings. Sealing material and methods shall be per UL recommendations.

2.12 BEDDING COURSE

A. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve.

**PART 3 - EXECUTION**

3.1 STORAGE

A. Provide for proper storage of all materials and equipment and assume responsibility for losses due to any cause. All storage shall be within the contract limits of the building Site or in a bonded warehouse. All equipment and materials must be covered and stored out of the elements; any item, which has become rusted, will not be permitted to be used.

B. Each Contractor shall provide temporary storage facilities suitable for equipment stored at the Job Site. Storage facilities shall be rainproof and lockable as required. Materials or equipment stored on Site but not in a lockable rainproof storage facility shall be stored above ground or above slab. Contractor shall take necessary precautions to prevent entry of and/or damage from dirt, trash, water, or vermin. Equipment not properly stored and protected shall be, at the discretion of Engineer, replaces at no cost to Owner. Roofs are not acceptable storage areas unless specifically allowed in writing by Engineer.

## 3.2 INSTALLATION AND ARRANGEMENT

A. Install all Work to permit removal (without damage to other parts) of coils, heat exchanger bundles, boiler tubes, fan shafts and wheels, filters, belt guards, sheaves and drives, and all other parts which might require periodic replacement or maintenance. Arrange pipes, ducts, and equipment to permit ready access to valves, traps, starters, motors, control components, and to clear opens of doors and of access panels.

B. Offsets, transitions, and changes in direction in pipes and ducts shall be made as required to maintain proper head room and pitch of sloping pipes whether or not indicated on the Drawings. Furnish and install all traps, air vents, sanitary vents, etc., as required to affect these offsets, transitions, and changes in direction.

C. Duct transitions and offsets required to connect ductwork to equipment shall be made as required whether or not indicated on the Drawings.

## 3.3 PROTECTION OF WORK AND PROPERTY

A. Where there are existing facilities, be responsible for protection thereof, whether or not such facility is to be removed or relocated or remain as installed. Moving or removing any facility must be done so as not to cause interruption to the Work or Owner's Operation.

B. All pipe and duct openings shall be closed with caps or plugs during installation. All fixtures shall be covered and protected against injury. At final completion, all Work shall be cleaned and delivered in an unblemished condition or refinished and repainted at the discretion of Engineer.

## 3.4 CONCEALED AND EXPOSED WORK

A. "Concealed" is intended to mean within such spaces as pipe chases, pipe trenches, above plaster ceilings, in walls and buried pipe is inaccessible when building is completed. "Exposed" is intended to be within equipment rooms, unfinished spaces, above "pushup" ceilings, accessible pipe tunnels, etc., where pipe is accessible.

## 3.5 CONCRETE

A. Mechanical Contractor shall coordinate all requirements for concrete. All concrete shall be furnished under the Engineer Divisions of these Specifications.

## 3.6 FIELD MEASUREMENTS

A. Contractor shall verify the dimensions and conditions governing Work at the Project Site. He shall examine adjoining Work on which his Work is dependent, for perfect efficiency, and shall report any Work which must be corrected.

3.7 LUBRICATION

A. Contractor shall provide all oil and grease for the operating of all equipment until acceptance. Contractor shall be held responsible for all damage to bearings while the equipment is being operated by him up to the date of acceptance of the equipment. Contractor shall protect all bearings and shafts during installation and shall thoroughly grease the steel shafts to prevent corrosion.

3.8 MANUFACTURER'S DIRECTION

A. Contractor shall install all equipment in strict accordance with all directions and recommendations furnished by the manufacturer. Where such directions conflict with the Plans and Specifications, Contractor shall report such conflicts to Engineer, who shall make changes deemed necessary and desirable.

3.9 FLUSHING, CLEANING, AND STERILIZING

A. Before final connections are made in the piping systems, all piping shall be blown out with air and then completely washed out with cleaning compounds. The systems shall be flushed for complete removal of all foreign materials. Furnish all temporary connections, valves, etc., required for this purpose.
B. After flushing, sterilize the domestic water systems with an approved chlorinating agent to provide a dosage on not less than 50 ppm. After minimum contact period of 8 hours, the system shall be flushed with clean water until the residual chlorine is no greater than the city water.

3.10 TESTS

A. Test all, storm, vent, and waste lines with either a 5 psi air test or a standing water test of 12 feet of head pressure. Test shall be held for a minimum of 2 hours, or as required by local code.
B. Test all new domestic cold, hot, and recirculating hot water service lines at 50 psig above operating pressure, without exceedidng the pressure rating of the piping materials. Test shall be held for a minimum of 2 hours, or as required by local code.
C. Test all new gas lines at 1-1/2 times the proposed maximum working pressure, but not less than 5 psig. Test to be held for a minimum of 2 hours, or as required by local code.
D. Repair leaks and defects with new materials and retest piping or portion thereof until satisfactory results are obtained.
E. All tests shall be witnessed and approved by Engineer and the local authority having jurisdiction before covering or insulating. The satisfactory operation of blowers, pumps and other equipment with moving parts shall be demonstrated to Engineer. Equipment without movable parts shall have pressure or other tests performed by Contractor to demonstrate satisfactory operation.
F. Furnish all instruments, pumps, blowers, and equipment required for the testing.
G. Provide written copies of these test reports for inclusion on the Operations and Maintenance Manuals and submit one copy to Engineer.

3.11 PAINTING

A. Surfaces of all equipment and material not provided with a factory finish coat shall be thoroughly cleaned, primed (if not factory primed) and finish coated with a high quality alkyd industrial enamel of a color chosen by Owner.

3.12 SPECIAL OPENINGS

A. Contractor shall attempt to schedule delivery of all large equipment requiring special openings for installation prior to enclosing of area. Where this is not possible written notice of required openings which must be provided shall be listed by size and location and submitted to General Contractor prior to enclosing of areas involved. Work required to construct openings and the associated cost of enclosing them shall be done at no additional cost to Owner.

3.13 PLACING IN OPERATION

A. All ducts, pipes, equipment, controls, etc., shall be cleaned of plaster and other foreign debris
B. Before final acceptance, all strainers shall be thoroughly cleaned or replaced, all bearings shall be oiled or greased and all drains shall be cleaned out and primed. All permanent filters shall be cleaned; throwaway type filters shall be replaced with new filters.
C. The systems shall be placed in operation.
D. Contractor shall verify that all controls are set to meet operating conditions specified.
    1. Example: Boiler operating control set at 180 degrees F. Limit control set at 200 degrees F.
E. Contractor shall verify that all pieces of equipment are operable and that all sequence of controls are being met.
F. Contractor to adjust seating through the first year as required by Engineer.

3.14 BALANCING, TESTING, AND ADJUSTING THE MECHANICAL SYSTEMS

A. Contractor shall include in their proposal the cost of testing, adjusting, and balancing (TAB). Mechanical Contractor shall provide a TAB report that shows the corrected airflow or coordinate with TAB Contractor to balance the system and correct deficiences noted by the TAB Contractor during TAB testing.

3.15 OPERATION AND MAINTENANCE INSTRUCTIONS

A. Contractor shall prepare and provide electronic copies of operating and maintenance manuals. Contractor shall deliver the electronic sets to Engineer for approval. Each manual shall be in a ring binder and shall be indexed with dividers for each Section. Delivery of required documents is a condition of final acceptance.
B. Each manual shall contain, but not limited to, the following general sections:
    1. Certificates of acceptance from the inspecting authorities.
    2. Waiver of all liens.
    3. Warranties with starting dates and end dates for each pieces of equipment and/or for each system (warranties shall begin on date of substantial completion and acceptance by Owner).

4. Names, telephone, and fax numbers and addresses of all subcontractors, vendors, manufacturer's representatives, and warranties providers.
5. Certification letters from each Contractor that each system furnished and installed by that Contractor and/or subcontractors is started-up, balanced, adjusted, and checked for proper operation in accordance with the intent of the Contract Documents.
6. Spare parts lists for each piece of equipment.
7. Lubrication charts showing type of lubrication and application methods and frequencies.
8. Filter cleaning or replacement schedule (on Contractor's letterhead stationary).
9. Preventative maintenance schedule for checking all items such as belt drives, safety controls, oil and refrigerant charges, and seasonal changer over recommendations. Cleaning of all strainers, traps, coils, tower pans, tubes, sprays, etc. (on Contractor's letterhead stationary).
10. Normal operating instructions including a sequence of operations (on Contractor's letterhead stationary).
11. Instructions as to procedures to be followed for emergency situations, such as alarms or safety items being tripped (on Contractor's letterhead stationary).
12. Instruction on who to call for service during guarantee period (on Contractor's letterhead stationary).
13. Copies of As-Built Drawings on reproducible vellum as produced by a Xerox or photographic process.
14. Copies of all approved Shop Drawing Submittals including nameplate date, design parameters, name, telephone and fax numbers, address of vendor, manufacturer's representative and warrantee provider.

C. Approval will not be given for final payment until the tests, balancing, and operating instruction portions have been completed.

## 3.16 INSTRUCTIONS TO OWNER

A. Contractor shall instruct Owner's operating personnel in the operations and maintenance of all mechanical systems and equipment. There shall be a minimum of 2 hours of training. Contractor shall furnish any special servicing tools required for maintenance.

B. Contractor shall conduct a demonstration of the installation upon completion and final acceptance of the Work. There shall be a minimum 2-hour demonstration. Prior to this, all Work shall have been completed, tested, balanced, and placed in operation. Qualified personnel must be present at the demonstration to operate all the systems and prove the performance of the equipment. The schedule for this demonstration shall be coordinated with Engineer.

## 3.17 EXCAVATION FOR PIPE AND CONDUIT

A. Excavate trenches to indicated gradients, lines, depths, and elevations.

B. Excavate trenches to uniform widths to provide a working clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit, unless otherwise indicated.

C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade. Level bottom of all trenches and cover all PVC pipe with processed chat.

1. For pipes and conduit less than 6 inches in nominal diameter and flat-bottomed, multiple-duct conduit units, hand excavate trench bottoms and support pipe and conduit on an undisturbed subgrade.
2. For pipes and conduit 6 inches or larger in nominal diameter, shape bottom of trench to support bottom 90 degrees of pipe circumference. Fill depressions with tamped sand backfill.
3. Excavate trenches 4 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

D. Place backfill and fill materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.

E. All piping and conduit trenches across pavement shall be backfilled with two-sack concrete to within 12 inches of finished grade.

F. Compact soil to not less than the following percentages of maximum dry unit weight according to ASTM D698:
1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill material at 95 percent.
2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill material at 92 percent.
3. Under lawn or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill material at 85 percent.

G. Install detectable warning tape above conduits and pipe, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

H. Protection:
1. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
2. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
    a. Scarify or remove and replace soil material to depth as directed by Engineer; reshape and recompact.
3. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
    a. Restore appearance, quality, and condition of finished surfacing to match adjacent Work, and eliminate evidence of restoration to the greatest extent possible.

I. Disposal of Surplus and Waste Materials:
1. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property unless otherwise directed by Owner.
2. Repair: Any damage to shrubs, grass or structures shall be repaired to previous condition by Contractor at no additional expense to Owner.

J. Bracing and Sheeting: Open cut trenches shall be sheeted and braced as required by OSHA and the requirements of the State of Texas as necessary for the safety of workers or the protection of property.

END OF SECTION

# SECTION 23 05 00.20 - BASIC MECHANICAL MATERIALS AND METHODS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. The following basic mechanical materials and methods to complement other Division 23 Sections.
      a. Piping materials and installation instructions common to most piping systems.
      b. Concrete equipment base construction requirements.
      c. Equipment nameplate data requirements.
      d. Labeling and identifying mechanical systems and equipment is specified in Section 23 05 53 "Identification for HVAC and Plumbing Piping and Equipment."
      e. Nonshrink grout for equipment installations.
      f. Field-fabricated metal and wood equipment supports.
      g. Installation requirements common to equipment specification Sections.
      h. Cutting and patching.
      i. Touch-up painting and finishing.
   2. Pipe and pipe fitting materials are specified in piping system Sections.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 DEFINITIONS

A. Pipe, pipe fittings, and piping include tube, tube fittings, and tubing.

B. Finished Spaces: Spaces other than mechanical and electrical equipment rooms, furred spaces, pipe and duct shafts, unheated spaces immediately below the roof, spaces above ceilings, unexcavated spaces, crawl spaces, and tunnels.

C. Exposed Interior Installations: Exposed to view indoors. Examples include finished occupied spaces and mechanical equipment rooms.

D. Exposed Exterior Installations: Exposed to view outdoors, or subject to outdoor ambient temperatures and weather conditions. Examples include rooftop locations.

E. Concealed Interior Installations: Concealed from view and protected from physical contact by building occupants. Examples include above ceilings and in duct shafts.

F. Concealed Exterior Installations: Concealed from view and protected from weather conditions and physical contact by building occupants, but subject to outdoor ambient temperatures. Examples include installations within unheated shelters.

### 1.3 SUBMITTALS

A. General: Submit the following according to the Conditions of the Contract and Division 01 and Section 23 05 00 "General Mechanical Requirements."

B. Product data for following piping specialties:
   1. Mechanical sleeve seals.
   2. Dielectric Fittings.
   3. Access Doors.

1.4 QUALITY ASSURANCE

A. Qualify welding processes and operators for piping according to ASME "Boiler and Pressure Vessel Code," Section IX, "Welding and Brazing Qualifications."
   1. Comply with provisions of ASME B31 Series "Code for Pressure Piping."
   2. Certify that each welder has passed AWS qualification tests for the welding processes involved and that certification is current.
B. ASME A13.1 for lettering size, length of color field, colors, and viewing angles of identification devices.
C. Equipment Selection: Equipment of greater or larger power, dimensions, capacities, and ratings may be furnished provided such proposed equipment is approved in writing and connecting mechanical and electrical services, circuit breakers, conduit, motors, bases, and equipment spaces are increased. No additional costs will be approved for these increases, if larger equipment is approved. If minimum energy ratings or efficiencies of the equipment are specified, the equipment must meet the design requirements and commissioning requirements.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver pipes and tubes with factory-applied end-caps. Maintain end-caps through shipping, storage, and handling to prevent pipe-end damage and prevent entrance of dirt, debris, and moisture.
B. Protect stored pipes and tubes from moisture and dirt. Elevate above grade. When stored inside, do not exceed structural capacity of the floor.
C. Protect flanges, fittings, and piping specialties from moisture and dirt.
D. Protect stored plastic pipes from direct sunlight. Support to prevent sagging and bending.

1.6 SEQUENCING AND SCHEDULING

A. Coordinate mechanical equipment installation with other building components.
B. Arrange for chases, slots, and openings in building structure during progress of construction to allow for mechanical installations.
C. Coordinate the installation of required supporting devices and set sleeves in poured-in-place concrete and other structural components as they are constructed.
D. Sequence, coordinate, and integrate installations of mechanical materials and equipment for efficient flow of the Work. Coordinate installation of large equipment requiring positioning prior to closing in the building.
E. Coordinate connection of electrical services.
F. Coordinate connection of mechanical systems with exterior underground and overhead utilities and services. Comply with requirements of governing regulations, franchised service companies, and controlling agencies.
G. Coordinate requirements for access panels and doors where mechanical items requiring access are concealed behind finished surfaces.
H. Coordinate installation of identifying devices after completing covering and painting where devices are applied to surfaces. Install identifying devices prior to installing acoustical ceilings and similar concealment.

## PART 2 - PRODUCTS

2.1 PIPE AND PIPE FITTINGS

A. Refer to individual piping system specification Sections for pipe and fitting materials and joining methods.
B. Pipe Threads: ASME B1.20.1 for factory-threaded pipe and pipe fittings.

2.2 JOINING MATERIALS

A. Refer to individual piping system Specification Sections in Division 23 for special joining materials not listed below.
B. Pipe Flange Gasket Materials: Suitable for the chemical and thermal conditions of the piping system contents.
   1. ASME B16.21, nonmetallic, flat, asbestos-free, 1/8-inch maximum thickness, except where thickness or specific material is indicated.
      a. Full-Face Type: For flat-face, Class 125 cast-iron and cast-bronze flanges.
      b. Narrow-Face Type: For raised-face, Class 250 cast iron and steel flanges.
   2. ASME B16.20 for grooved, ring-joint, steel flanges.
   3. AWWA C110, rubber, flat face, 1/8-inch-thick, except where other thickness is indicated; and full-face or ring type, except where type is indicated.
C. Flange Bolts and Nuts: ASME B18.2.1, carbon steel, except where other material is indicated.
D. Plastic Pipe Flange Gasket, Bolts, and Nuts: Type and material recommended by piping system manufacturer, except where other type or material is indicated.
E. Solder Filler Metal: ASTM B32.
   1. Alloy Sn95 or Alloy Sn94: Tin (approximately 95 percent) and silver (approximately 5 percent), having 0.10 percent lead content.
F. Brazing Filler Metals: AWS A5.8.
   1. BCuP Series: Copper-phosphorus alloys.
   2. BAg1: Silver alloy.
G. Welding Filler Metals: Comply with AWS D10.12 for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.
H. Solvent Cements: Manufacturer's standard solvents complying with the following:
   1. Acrylonitrile-Butadiene-Styrene (ABS): ASTM D2235.
   2. Chlorinated Poly (Vinyl Chloride) (CPVC): ASTM F493.
   3. Poly (Vinyl Chloride) (PVC): ASTM D2564.
   4. PVC to ABS Transition: Made to requirements of ASTM D3138, color other than orange.
I. Plastic Pipe Seals: ASTM F477, elastomeric gasket.
J. Flanged, Ductile-Iron Pipe Gasket, Bolts, and Nuts: AWWA C110, rubber gasket, carbon steel bolts and nuts.
K. Couplings: Iron body sleeve assembly, fabricated to match outside diameters of plain-end pressure pipes.
   1. Sleeve: ASTM A126, Class B, gray iron.
   2. Followers: ASTM A47, Grade 32510 or ASTM A536 ductile iron.
   3. Gaskets: Rubber.
   4. Bolts and Nuts: AWWA C111.
   5. Finish: Enamel paint.

2.3 PIPING SPECIALTIES

A. Escutcheons: Manufactured wall, ceiling, and floor plates; deep-pattern type where required to conceal protruding fittings and sleeves.
   1. Inside Diameter: Closely fit around pipe, tube, and insulation.
   2. Outside Diameter: Completely cover opening.
   3. Cast Brass: One-piece, with setscrew.
      a. Finish: Rough brass.
      b. Finish: Polished chrome plate.
   4. Cast Brass: Split casting, with concealed hinge and setscrew.
      a. Finish: Rough brass.
      b. Finish: Polished chrome plate.
   5. Stamped Steel: One-piece, with setscrew and chrome-plated finish.
   6. Stamped Steel: One-piece, with spring clips and chrome-plated finish.
   7. Stamped Steel: Split plate, with concealed hinge, setscrew, and chrome-plated finish.
   8. Stamped Steel: Split plate, with concealed hinge, spring clips, and chrome-plated finish.
   9. Stamped Steel: Split plate, with exposed-rivet hinge, setscrew, and chrome-plated finish.
   10. Stamped Steel: Split plate, with exposed-rivet hinge, spring clips, and chrome-plated finish.
   11. Cast-Iron Floor Plate: One-piece casting.

B. Dielectric Fittings: Assembly or fitting having insulating material isolating joined dissimilar metals to prevent galvanic action and stop corrosion.
   1. Description: Combination of copper alloy and ferrous; threaded, solder, plain, and weld neck end types and matching piping system materials.
   2. Insulating Material: Suitable for system fluid, pressure, and temperature.
   3. Dielectric Unions: Factory-fabricated, union assembly for 250-psig minimum working pressure at a 180 degrees F temperature.
   4. Dielectric Flanges: Factory-fabricated, companion-flange assembly for 150- or 300-psig minimum pressure to suit system pressures.
   5. Dielectric-Flange Insulation Kits: Field-assembled, companion-flange assembly, full-face or ring type. Components include neoprene or phenolic gasket, phenolic or polyethylene bolt sleeves, phenolic washers, and steel backing washers.
      a. Provide separate companion flanges and steel bolts and nuts for 150- or 300-psig minimum working pressure to suit system pressures.
   6. Dielectric Couplings: Galvanized-steel coupling, having inert and noncorrosive, thermoplastic lining, with threaded ends and 300-psig minimum working pressure at 225 degrees F temperature.
   7. Dielectric Nipples: Electroplated steel nipple, having inert and noncorrosive thermoplastic lining, with combination of plain, threaded, or grooved end types and 300-psig working pressure at 225 degrees F temperature.

C. Mechanical Sleeve Seals: Modular, watertight mechanical type. Components include interlocking synthetic rubber links shaped to continuously fill annular space between pipe and sleeve. Connecting bolts and pressure plates cause rubber-sealing elements to expand when tightened.

D. Sleeves: The following materials are for wall, floor, slab, and roof penetrations:

1. Steel Sheet Metal: 24-gauge or heavier galvanized sheet metal, round tube closed with welded longitudinal joint.
2. Steel Pipe: ASTM A53, Type E, Grade A, Schedule 40, galvanized, plain ends.
3. Cast-Iron: Cast or fabricated wall pipe equivalent to ductile-iron pressure pipe, having plain ends and integral water stop, except where other features are specified.
4. Wall Penetration Systems: Wall sleeve assembly, consisting of housing, gaskets, and pipe sleeve, with 1 mechanical-joint end conforming to AWWA C110 and one plain pipe-sleeve end.
    a. Penetrating Pipe Deflection: 5 percent without leakage.
    b. Housing: Ductile-iron casting having waterstop and anchor ring, with ductile-iron gland, steel studs and nuts, and rubber gasket conforming to AWWA C111, of housing and gasket size as required to fit penetrating pipe.
    c. Pipe Sleeve: AWWA C151, ductile-iron pipe.
    d. Housing-to-Sleeve Gasket: Rubber or neoprene push-on type of manufacturer's design.
5. Cast-Iron Sleeve Fittings: Commercially made sleeve having an integral clamping flange, with clamping ring, bolts, and nuts for membrane flashing.
    a. Underdeck Clamp: Clamping ring with setscrews.

2.4 GROUT

A. Nonshrink, Nonmetallic Grout: ASTM C1107, Grade B.
1. Characteristics: Post-hardening, volume-adjusting, dry, hydraulic-cement grout, nonstaining, noncorrosive, nongaseous, and recommended for interior and exterior applications.
2. Design Mix: 5,000-psi, 28-day compressive strength.
3. Packaging: Premixed and factory-packaged.

2.5 ACCESS DOORS

A. Flush mounted steel access doors with 16 gauge frame and 14 gauge panel. Prime coat finish. Concealed spring hinges, screwdriver cam-lock. Doors in fire rated surfaces shall be UL listed and labeled. Doors to be Milcor or approved equivalent.

**PART 3 - EXECUTION**

3.1 PIPING SYSTEMS - COMMON REQUIREMENTS

A. General: Install piping as described below, except where system Sections specify otherwise. Individual piping system Specification Sections in Divisions 23 specify piping installation requirements unique to the piping system.
B. General Locations and Arrangements: Drawings (plans, schematics, and diagrams) indicate general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated, except where deviations to layout are approved on Coordination Drawings.
C. Install piping at indicated slope.

D. Install components having pressure rating equal to or greater than system operating pressure.

E. Install piping in concealed interior and exterior locations, except in equipment rooms and service areas.
F. Install piping free of sags and bends.
G. Install exposed interior and exterior piping at right angles or parallel to building walls. Diagonal runs are prohibited, except where indicated.
H. Install piping tight to slabs, beams, joists, columns, walls, and other building elements. Allow sufficient space above removable ceiling panels to allow for ceiling panel removal.
I. Install piping to allow application of insulation plus 1-inch clearance around insulation.
J. Locate groups of pipes parallel to each other, spaced to permit valve servicing.
K. Install fittings for changes in direction and branch connections.
L. Install couplings according to manufacturer's printed instructions.
M. Install pipe escutcheons for pipe penetrations of concrete and masonry walls, wall board partitions, and suspended ceilings according to the following:
    1. Chrome-Plated Piping: Cast-brass, one-piece, with setscrew, and polished chrome-plated finish. Use split-casting escutcheons, where required, for existing piping.
    2. Uninsulated Piping Wall Escutcheons: Cast-brass or stamped-steel, with setscrew.
    3. Uninsulated Piping Floor Plates in Utility Areas: Cast-iron floor plates.
    4. Insulated Piping: Cast-brass or stamped-steel, with concealed hinge, spring clips, and chrome-plated finish.
    5. Piping in Utility Areas: Cast-brass or stamped-steel, with setscrew or spring clips.
N. Sleeves are required for core drilled holes.
O. Install sleeves for pipes passing through concrete and masonry walls, concrete floor and roof slabs, and where indicated.
P. Install sleeves for pipes passing through concrete and masonry walls, gypsum-board partitions, concrete floor and roof slabs, and where indicated.
    1. Cut sleeves to length for mounting flush with both surfaces.
        a. Exception: Extend sleeves installed in floors of mechanical equipment areas or other wet areas 4 inches above finished floor level. Extend cast-iron sleeve fittings below floor slab as required to secure clamping ring where specified.
    2. Build sleeves into new walls and slabs as Work progresses.
    3. Install large enough sleeves to provide 1/4-inch annular clear space between sleeve and pipe or pipe insulation. Use the following sleeve materials:
        a. Steel Pipe Sleeves: For pipes smaller than 6 inches.
        b. Steel Sheet-Metal Sleeves: For pipes 6 inches and larger that penetrate gypsum board partitions.
        c. Cast-Iron Sleeve Fittings: For floors having membrane waterproofing. Secure flashing between clamping flanges. Install section of cast-iron soil pipe to extend sleeve to 4 inches above finished floor level. Flashing is specified in Division 07.
            1) Seal space outside of sleeve fittings with nonshrink, nonmetallic grout.
    4. Except for below-grade wall penetrations, seal annular space between sleeve and pipe or pipe insulation, using elastomeric joint sealants specified in Division 07.

Q. Above Grade, Exterior Wall, and Pipe Penetrations: Seal penetrations using sleeves and mechanical sleeve seals. Size sleeve for 1-inch annular clear space between pipe and sleeve for installation of mechanical seals.
    1. Install steel pipe for sleeves smaller than 6 inches.
    2. Install cast-iron wall pipes for sleeves 6 inches and larger.
    3. Assemble and install mechanical seals according to manufacturer's printed instructions.

R. Below Grade, Exterior Wall, and Pipe Penetrations: Install cast-iron wall pipes for sleeves. Seal pipe penetrations using mechanical sleeve seals. Size sleeve for 1-inch annular clear space between pipe and sleeve for installation of mechanical seals.
   1. Below Grade, Exterior Wall, and Pipe Penetrations: Install ductile-iron wall penetration system sleeves according to manufacturer's printed installation instructions.

S. Fire Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with firestopping sealant material. Firestopping materials are specified in Division 07.

T. Verify final equipment locations for roughing in.

U. Refer to equipment specifications in other Sections for roughing-in requirements.

V. Piping Joint Construction: Join pipe and fittings as follows and as specifically required in individual piping system Sections.
   1. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
   2. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
   3. Soldered Joints: Construct joints according to AWS "Soldering Manual," in "The Soldering of Pipe and Tube" chapter.
   4. Brazed Joints: Construct joints according to AWS "Brazing Manual" in the "Pipe and Tube" chapter.
   5. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full inside diameter. Join pipe fittings and valves as follows:
      a. Note the internal length of threads in fittings or valve ends, and proximity of internal seat or wall, to determine how far pipe should be threaded into joint.
      b. Apply appropriate tape or thread compound to external pipe threads (except where dry seal threading is specified).
      c. Align threads at point of assembly.
      d. Tighten joint with wrench. Apply wrench to valve end into which pipe is being threaded.
      e. Damaged Threads: Do not use pipe or pipe fittings having threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.
   6. Welded Joints: Construct joints according to AWS D10.12 "Recommended Practices and Procedures for Welding Low Carbon Steel Pipe" using qualified processes and welding operators according to the "Quality Assurance" Article.
   7. Flanged Joints: Align flange surfaces parallel. Select appropriate gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Assemble joints by sequencing bolt tightening to make initial contact of flanges and gaskets as flat and parallel as possible. Use suitable lubricants on bolt threads. Tighten bolts gradually and uniformly using torque wrench.
   8. Plastic Pipe and Fitting Solvent-Cement Joints: Clean and dry joining surfaces by wiping with clean cloth or paper towels. Join pipe and fittings according to the following standards:
      a. Comply with ASTM F402 for safe handling of solvent-cement and primers.
      b. Acrylonitrile-Butadiene-Styrene (ABS): ASTM D2235 and ASTM D2661.
      c. Chlorinated Poly (Vinyl Chloride) (CPVC): ASTM D2846 and ASTM F493.
      d. Poly (Vinyl Chloride) (PVC) Pressure Application: ASTM D2672.
      e. Poly (Vinyl Chloride) (PVC) Non-Pressure Application: ASTM D2855.

f. PVC to ABS (Non-Pressure) Transition: Procedure and solvent cement described in ASTM D3138.

9. Plastic Pipe and Fitting Heat-Fusion Joints: Prepare pipe and fittings and join with heat-fusion equipment according to manufacturer's printed instructions.
   a. Plain-End Pipe and Fittings: Butt joining.
   b. Plain-End Pipe and Socket-Type Fittings: Socket joining.

W. Piping Connections: Except as otherwise indicated, make piping connections as specified below.
1. Install unions in piping 2 inches and smaller adjacent to each valve and at final connection to each piece of equipment having a 2-inch or smaller threaded pipe connection.
2. Install flanges in piping 2-1/2 inches and larger adjacent to flanged valves and at final connection to each piece of equipment having flanged pipe connection.
3. Dry Piping Systems (Gas): Install dielectric unions and flanges to connect piping materials of dissimilar metals.
4. Wet Piping Systems (Water): Install dielectric coupling and nipple fittings to connect piping materials of dissimilar metals.

## 3.2 EQUIPMENT INSTALLATION - COMMON REQUIREMENTS

A. Install equipment to provide the maximum possible headroom where mounting heights are not indicated.
B. Install equipment according to approved submittal data. Portions of the Work are shown only in diagrammatic form. Refer conflicts to Engineer.
C. Install equipment level and plumb, parallel and perpendicular to other building systems and components in exposed interior spaces, except where otherwise indicated.
D. Install mechanical equipment to facilitate servicing, maintenance, and repair or replacement of equipment components. Connect equipment for ease of disconnecting, with minimum of interference with other installations. Extend grease fittings to an accessible location.
E. Install equipment giving right-of-way to piping systems installed at a required slope.

## 3.3 ACCESS DOORS

A. Furnish an access door for each pipe chase for each floor. This includes both toilet plumbing chases and pipe riser chases. Access doors assembly to be size 16 by 16 inches. Access doors are not shown on floor plans. Access door locations shall be field verified.
B. Also, furnish access doors in all non-removable ceiling and in partitions and walls where necessary access to plumbing cleanouts, shock absorbers, fire dampers, manual dampers, valves and other mechanical devices requiring access. Size these as required for access with minimum size of 12 by 12 inches.

C. Any access doors furnished for installation in fire rated surfaces or assembly shall carry an approved fire rating for that use.
D. Any access doors furnished for installation in glued on acoustical surfaces or assembly shall have recessed door to allow installation of tiles.
E. Provide all access doors to General Contractor for them to construct into the building.

## 3.4 PAINTING AND FINISHING

A. Refer to Division 09 for field painting requirements.

B. Damage and Touch-Up: Repair marred and damaged factory-painted finishes with materials and procedures to match original factory finish.

3.5 CONCRETE BASES

A. Construct concrete equipment bases of dimensions indicated, but not less than 4 inches larger than supported unit in both directions. Follow supported equipment manufacturer's setting templates for anchor bolt and tie locations. Use 3,000-psi, 28-day compressive strength concrete and reinforcement use fibrillated or monofilament polypropylene fibers engineered and designed for use in concrete, complying with ASTM C 1116, Type III, 1/2- to 1-1/2 inches long. Uniformly disperse in concrete mix at manufacturer's recommended rate, but not less than 1.5 pound per cubic yard.

3.6 ERECTION OF METAL SUPPORTS AND ANCHORAGE

A. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor mechanical materials and equipment.
B. Field Welding: Comply with AWS D1.1 "Structural Welding Code - Steel."

3.7 ERECTION OF WOOD SUPPORTS AND ANCHORAGE

A. Cut, fit, and place wood grounds, nailers, blocking, and anchorage to support and anchor mechanical materials and equipment.
B. Select fastener sizes that will not penetrate members where oppoSite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood members.
C. Attach to substrates as required to support applied loads.

3.8 CUTTING AND PATCHING

A. Cut, channel, chase, and drill floors, walls, partitions, ceilings, and other surfaces necessary for mechanical installations. Perform cutting by skilled mechanics of the trades involved.
B. Repair cut surfaces to match adjacent surfaces.

3.9 GROUTING

A. Install nonmetallic, nonshrink grout for mechanical equipment base bearing surfaces, pump and other equipment base plates, and anchors. Mix grout according to manufacturer's printed instructions.
B. Clean surfaces that will come into contact with grout.

C. Provide forms for placement of grout, as required.
D. Avoid air entrapment when placing grout.
E. Place grout to completely fill equipment bases.
F. Place grout on concrete bases to provide a smooth bearing surface for equipment.
G. Place grout around anchors.
H. Cure placed grout according to manufacturer's printed instructions.

3.10 DEMOLITION

A. Disconnect, demolish, and remove Work specified under Divisions 23 and as indicated.

B. Where pipe, duct Work, insulation, or equipment to remain is damaged or disturbed, remove damaged portions and install new products of equal capacity and quality.
C. Accessible Work: Remove indicated exposed pipe and duct Work in its entirety.
D. Abandoned Work: Cut and remove buried pipe abandoned in place, 2 inches beyond the face of adjacent construction. Cap and patch surface to match existing finish.
E. Removal: Remove indicated equipment from the Project Site.
F. Temporary Disconnection: Remove, store, clean, reinstall, reconnect, and make operational equipment indicated for relocation.

END OF SECTION

# SECTION 23 05 53 - IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Nameplates.
   2. Tags.
   3. Stencils.
   4. Pipe markers.
B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. American Society of Mechanical Engineers:
   1. ASME A13.1 - Scheme for the Identification of Piping Systems.

1.3 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechanical Requirements."
B. Product Data: Submit manufacturers catalog literature for each product required.
C. Manufacturer's Installation Instructions: Indicate installation instructions, special procedures, and installation.
D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of tagged valves; include valve tag numbers.

1.5 QUALITY ASSURANCE

A. Conform to ASME A13.1 for color scheme for identification of piping systems and accessories.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' experience.

1.7 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

## PART 2 - PRODUCTS

2.1 NAMEPLATES

A. Nameplates
   1. Manufacturers:
      a. Seton Identification Products.
      b. Substitutions: Section 23 05 00 "Generald Mechanical Requirements.
B. Product Description: Laminated three-layer plastic with engraved black letters on light contrasting background color.

2.2 TAGS

A. Metal Tags
   1. Manufacturers:
      a. Brass with stamped letters; tag size minimum 1-1/2 inches diameter with finished edges.
B. Tag Chart: Typewritten letter size list of applied tags and location in anodized aluminum frame.

2.3 STENCILS

A. Stencils: With clean cut symbols and letters of following size:
   1. Up to 2 inches Outside Diameter of Insulation or Pipe: 1/2-inch high letters.
   2. Two and one half to 6 inches Outside Diameter of Insulation or Pipe: 1-inch high letters.
   3. Over 6 inches Outside Diameter of Insulation or Pipe: 1-3/4 inches high letters.
   4. Equipment: 1-3/4 inches high letters.
B. Stencil Paint: As specified in Section 09 90 00, semi-gloss enamel, colors and lettering size conforming to ASME A13.1.

2.4 PIPE MARKERS

A. Color and Lettering: Conform to ASME A13.1.
B. Plastic Pipe Markers:
   1. Factory fabricated, flexible, semi-rigid plastic, preformed to fit around pipe or pipe covering. Larger sizes may have maximum sheet size with spring fastener.
C. Plastic Tape Pipe Markers:
   1. Flexible, vinyl film tape with pressure sensitive adhesive backing and printed markings.
D. Plastic Underground Pipe Markers:
   1. Bright colored continuously printed plastic ribbon tape, minimum 6 inches wide by 4 mil thick, manufactured for direct burial service. Markers used on nonmetallic pipe shall contain tracer wire.

## PART 3 - EXECUTION

3.1 PREPARATION

A. Degrease and clean surfaces to receive adhesive for identification materials.
B. Prepare surfaces in accordance with Division 09 for stencil painting.

3.2 INSTALLATION

A. Apply stencil painting in accordance with Division 09.
B. Install identifying devices after completion of coverings and painting.
C. Install plastic nameplates with corrosive-resistant mechanical fasteners, or adhesive.
D. Install tags using corrosion resistant chain. Number tags consecutively by location.
E. Install underground plastic pipe markers 8 to 10 inches below finished grade, directly above buried pipe.
F. Identify air handling units, pumps, heat transfer equipment, tanks, and water treatment devices with plastic nameplates. Identify in-line pumps and other small devices with tags.
G. Identify control panels and major control components outside panels with plastic nameplates.
H. Identify valves in main and branch piping with tags.
I. Identify air terminal units and radiator valves with numbered tags.
J. Tag automatic controls, instruments, and relays. Key to control schematic.
K. Identify piping, concealed or exposed, with plastic pipe markers, plastic tape pipe markers,or stenciled painting. Use tags on piping 3/4-inch diameter and smaller. Identify service, flow direction, and pressure. Install in clear view and align with axis of piping. Locate identification not to exceed 20 feet on straight runs including risers and drops, adjacent to each valve and tee, at each side of penetration of structure or enclosure, and at each obstruction.

END OF SECTION

# SECTION 23 07 05 - HVAC AND PLUMBING INSULATION

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
1. Ductwork insulation.
2. Duct liner.
3. Insulation jackets.
4. Piping system insulation.
5. Insulation accessories including vapor retarders, jackets, and accessories.

B. Related Requirements:
1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCES

A. ASTM International:
1. ASTM A167 - Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
2. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
3. ASTM C177 - Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
4. ASTM C195 - Standard Specification for Mineral Fiber Thermal Insulating Cement.
5. ASTM C449 - Standard Specification for Mineral Fiber Hydraulic-Setting Thermal Insulating and Finishing Cement.
6. ASTM C518 - Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
7. ASTM C533 - Standard Specification for Calcium Silicate Block and Pipe Thermal Insulation.
8. ASTM C534 - Standard Specification for Preformed Flexible Elastomeric Cellular Thermal Insulation in Sheet and Tubular Form.
9. ASTM C547 - Standard Specification for Mineral Fiber Pipe Insulation.
10. ASTM C552 - Standard Specification for Cellular Glass Thermal Insulation.
11. ASTM C553 - Standard Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications.
12. ASTM C591 - Standard Specification for Unfaced Preformed Rigid Cellular Polyisocyanurate Thermal Insulation.
13. ASTM C592 - Standard Specification for Mineral Fiber Blanket Insulation and Blanket-Type Pipe Insulation (Metal-Mesh Covered) (Industrial Type).
14. ASTM C610 - Standard Specification for Molded Expanded Perlite Block and Pipe Thermal Insulation.
15. ASTM C612 - Standard Specification for Mineral Fiber Block and Board Thermal Insulation.
16. ASTM C795 - Standard Specification for Thermal Insulation for Use in Contact with Austenitic Stainless Steel.

17. ASTM C921 - Standard Practice for Determining the Properties of Jacketing Materials for Thermal Insulation.
18. ASTM C1071 - Standard Specification for Thermal and Acoustical Insulation (Glass Fiber, Duct Lining Material).
19. ASTM C1126 - Standard Specification for Faced or Unfaced Rigid Cellular Phenolic Thermal Insulation.
20. ASTM C1136 - Standard Specification for Flexible, Low Permeance Vapor Retarders for Thermal Insulation.
21. ASTM C1290 - Standard Specification for Flexible Fibrous Glass Blanket Insulation Used to Externally Insulate HVAC Ducts.
22. ASTM D1784 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
23. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
24. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.
25. ASTM E162 - Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source.
26. ASTM G21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.

B. Sheet Metal and Air Conditioning Contractors:
1. SMACNA - HVAC Duct Construction Standard - Metal and Flexible.

## 1.3 SUBMITTALS

A. Refer to Division 01 and Section 23 05 00 "General Mechanical Requirements" for submittals.
B. Product Data: Submit product description, thermal characteristics and list of materials and thickness for each service, and location.
C. Manufacturer's Installation Instructions: Submit manufacturers published literature indicating proper installation procedures.
D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

## 1.4 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Applicator: Company specializing in performing Work of this Section with minimum 3 years' experience approved by manufacturer.

## 1.5 DELIVERY, STORAGE, AND HANDLING

A. Accept materials on Site in original factory packaging, labeled with manufacturer's identification, including product density and thickness.
B. Protect insulation from weather and construction traffic, dirt, water, chemical, and mechanical damage, by storing in original wrapping.

## 1.6 ENVIRONMENTAL REQUIREMENTS

A. Install insulation only when ambient temperature and humidity conditions are within range recommended by manufacturer.
B. Maintain temperature during and after installation for minimum period of 24 hours.

1.7 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.8 WARRANTY

A. Refer to Section 23 05 00 "General Mechanical Requirements" for product warranties.

**PART 2 - PRODUCTS**

2.1 MAN MADE MINERAL FIBER

A. Manufacturers:
   1. Johns Manville.
   2. Knauf.
   3. Owens Corning.
   4. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements" for substitutions.
B. Insulation: ASTM C547 Mineral Fiber Pipe Insulation, Type I, 850 degrees F.
C. Vapor Retarder Jacket:
   1. ASTM C921, White Kraft paper with glass fiber yarn, bonded to aluminized film.
   2. Moisture Vapor Transmission: ASTM E96; 0.02 perm-inches.
D. Tie Wire: 0.048-inch stainless steel with twisted ends on maximum 12-inch centers.
E. Vapor Retarder Lap Adhesive: Compatible with insulation.
F. Insulating Cement/Mastic: ASTM C195; hydraulic setting on mineral wool.
G. Glass Fiber Fabric:
   1. Cloth: Untreated; 9 ounces per square yard weight.
   2. Blanket: 1.0 pound per cubic feet density.
   3. Weave: 10 by 10.
H. Indoor Vapor Retarder Finish:
   1. Cloth: Untreated; 9 ounces per square yard weight.
   2. Vinyl emulsion type acrylic, compatible with insulation, white color.
I. Insulating Cement: ASTM C449.

2.2 MINERAL FIBER, FLEXIBLE

A. Manufacturers:
   1. Johns Manville.
   2. Knauf.
   3. Owens Corning.
   4. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements" for substitutions.
B. Insulation: ASTM C553 Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications, Type II.
   1. Density: 0.75 PCF.
C. Vapor Retarder Jacket:
   1. Kraft paper with glass fiber yarn and bonded to aluminized film.
   2. Moisture vapor transmission: ASTM E96; 0.02 perm.
   3. Secure with pressure sensitive tape.

D. Vapor Retarder Tape: Kraft paper reinforced with glass fiber yarn and bonded to aluminized film, with pressure sensitive rubber-based adhesive.
E. Tie Wire: Annealed steel, 16 gauge.

## 2.3 ELASTOMERIC CELLULAR FOAM

A. Manufacturers:
   1. Armaflex.
   2. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements" for substitutions.
B. Preformed Flexible Elastomeric Cellular Thermal Insulation in Sheet and Tubular form: ASTM C534; Type I, Tubular form.
C. Elastomeric Foam Adhesive: Air dried, contact adhesive, compatible with insulation.

## 2.4 PIPE INSULATION AND EQUIPMENT JACKETS

A. PVC Plastic Pipe Jacket:
   1. Manufacturers:
      a. Johns Manville.
      b. Knauf.
      c. Owens Corning.
      d. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements" for substitutions.
   2. Product Description: ASTM D1784, one-piece molded type fitting covers and sheet material, off-white color.
   3. Thickness: 15 mil.
   4. Connections: Brush-on welding adhesive.
B. PVC Plastic Equipment Jacket:
   1. Manufacturers:
      a. Johns Manville.
      b. Knauf.
      c. Owens Corning.
      d. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements" for substitutions.
   2. Product Description: Sheet material, off-white color.
   3. Minimum Service Temperature: Minus 40 degrees F.
   4. Maximum Service Temperature: 150 degrees F.
   5. Moisture Vapor Transmission: ASTM E96; 0.002 perm-inches.
   6. Thickness: 15 mil.
   7. Connections: Brush-on welding adhesive.
C. Covering Adhesive Mastic: Compatible with insulation.
D. Aluminum Pipe Jacket:
   1. ASTM B209.
   2. Thickness: 0.020-inch thick
   3. Finish: Stucco embossed.
   4. Jointing: Longitudinal slip joints and 2-inch laps.
   5. Fittings: 0.016-inch thick die shaped fitting covers with factory attached protection liner.
   6. Metal Jacket Bands: 3/8-inch wide; 0.015-inch thick aluminum.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify piping, equipment and ductwork has been tested before applying insulation materials.
B. Verify surfaces are clean and dry, with foreign material removed.

3.2 INSTALLATION

A. Exposed Piping: Locate insulation and cover seams in least visible locations. Provide PVC jacketing.
B. Insulated pipes conveying fluids below ambient temperature: Insulate entire system including fittings, valves, unions, flanges, strainers, flexible connections, pump bodies, and expansion joints.
C. Man made mineral fiber insulated pipes conveying fluids below ambient temperature:
   1. Furnish factory-applied or field-applied vapor retarder jackets. Secure factory-applied jackets with pressure sensitive adhesive self-sealing longitudinal laps and butt strips. Secure field-applied jackets with outward clinch expanding staples and seal staple penetrations with vapor retarder mastic.
   2. Insulate fittings, joints, and valves with molded insulation of like material and thickness as adjacent pipe. Finish with glass cloth and vapor retarder adhesive or PVC fitting covers.
D. For hot piping conveying fluids over 140 degrees F, insulate flanges and unions at equipment.
E. Man made mineral fiber insulated pipes conveying fluids above ambient temperature:
   1. Furnish factory-applied or field-applied standard jackets. Secure with outward clinch expanding staples or pressure sensitive adhesive system on standard factory-applied jacket and butt strips or both.
   2. Insulate fittings, joints, and valves with insulation of like material and thickness as adjoining pipe. Finish with glass cloth and adhesive or PVC fitting covers.
F. Inserts and Shields:
   1. Application: Piping or Equipment 1-1/2 inches diameter or larger.
   2. Shields: Galvanized steel between pipe hangers or pipe hanger rolls and inserts.
   3. Insert location: Between support shield and piping and under finish jacket.
   4. Insert configuration: Minimum 6 inches long, of thickness and contour matching adjoining insulation; may be factory fabricated.
   5. Insert material: Compression resistant insulating material suitable for planned temperature range and service.
G. Continue insulation through penetrations of building assemblies or portions of assemblies having fire resistance rating of 1 hour or less. Provide intumescent firestopping when continuing insulation through assembly. Finish at supports, protrusions, and interruptions. Refer to Division 07 for penetrations of assemblies with fire resistance rating greater than 1 hour.
H. Factory Insulated Equipment: Do not insulate.
I. Exposed Equipment: Locate insulation and cover seams in least visible locations.
J. Apply insulation close to equipment by grooving, scoring, and beveling insulation. Fasten insulation to equipment with studs, pins, clips, adhesive, wires, or bands.

K. Fill joints, cracks, seams, and depressions with bedding compound to form smooth surface. On cold equipment, use vapor retarder cement.

L. Insulated Equipment Containing Fluids Below Ambient Temperature: Insulate entire system.

M. Mineral fiber insulated equipment containing fluids below ambient temperature: Provide vapor retarder jackets, factory-applied or field-applied. Finish with glass-cloth and vapor barrier adhesive.

N. For hot equipment containing fluids over 140 degrees F, insulate flanges and unions with removable sections and jackets.

O. Mineral Fiber Insulated Equipment Containing Fluids Above Ambient Temperature: Provide standard jackets, with or without vapor retarder, factory-applied or field-applied. Finish with glass cloth and adhesive.

P. Finish insulation at supports, protrusions, and interruptions.

Q. Nameplates and ASME Stamps: Bevel and seal insulation around; do not insulate over.

R. Equipment Requiring Access for Maintenance, Repair, or Cleaning: Install insulation for easy removal and replacement without damage.

S. Insulated ductwork conveying air below ambient temperature:
   1. Provide insulation with vapor retarder jackets.
   2. Finish with tape and vapor retarder jacket.
   3. Continue insulation through walls, sleeves, hangers, and other duct penetrations.
   4. Insulate entire system including fittings, joints, flanges, fire dampers, flexible connections, and expansion joints.

T. Insulated ductwork conveying air above ambient temperature:
   1. Provide with or without standard vapor retarder jacket.
   2. Insulate fittings and joints. Where service access is required, bevel and seal ends of insulation.

U. External Duct Insulation Application:
   1. Secure insulation with vapor retarder with wires and seal jacket joints with vapor retarder adhesive or tape to match jacket.
   2. Secure insulation without vapor retarder with staples, tape, or wires.
   3. Install without sag on underside of ductwork. Use adhesive or mechanical fasteners where necessary to prevent sagging. Lift ductwork off trapeze hangers and insert spacers.
   4. Seal vapor retarder penetrations by mechanical fasteners with vapor retarder adhesive.
   5. Stop and point insulation around access doors and damper operators to allow operation without disturbing wrapping.

V. For hot equipment containing fluids over 140 degrees F, insulate flanges and unions with removable sections and jackets.

W. Exterior Applications: Provide vapor retarder jacket. Insulate fittings, joints, and valves with insulation of like material and thickness as adjoining pipe, and finish with glass mesh reinforced vapor retarder cement. Cover with aluminum jacket with seams located at 3 or 9 o' clock position on side of horizontal piping with overlap facing down to shed water.

3.3 SCHEDULES

A. Plumbing Systems:
   1. Domestic Hot Water Supply:
      a. Man-made Mineral Fiber Insulation:
         1) Pipe Size Range: 1.5-inch or less.
            a) Thickness: 1 inch.
         2) Pipe Size Range: Greater than 1.5 inches.
            a) Thickness: 2 inches.
         3) Runout Piping 4 feet or less:
            a) Pipe Size Range: 1 inch or less.
            b) Thickness: 1/2-inch.
   2. Domestic Cold Water:
      a. Man-made Mineral Fiber Insulation:
         1) Pipe Size Range: All sizes.
            a) Thickness: 1/2-inch.

B. Cooling Systems:
   1. Interior Condensate Drains and Refrigerant Suction Piping:
      a. Elastomeric Cellular Foam:
         1) Pipe Size Range: All sizes.
            a) Thickness: 3/4-inch.

C. Supply Ducts:
   1. Mineral Fiber, Flexible:
      a. Thickness: As required to meet R-6.

D. Return Ducts:
   1. Mineral Fiber, Flexible (return ducts without liner):
      a. Thickness: As required to meet R-6.

END OF SECTION

# SECTION 23 23 00 - REFRIGERANT PIPING

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Refrigerant piping.
2. Unions, flanges, and couplings.
3. Valves.
4. Refrigerant strainers.

B. Related Sections:
1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. Air-Conditioning and Refrigeration Institute:
1. ARI 495 - Refrigerant Liquid Receivers.
2. ARI 710 - Liquid-Line Driers.
3. ARI 730 - Flow-Capacity Rating and Application of Suction-Line Filters and Filter Dryers.
4. ARI 750 - Thermostatic Refrigerant Expansion Valves.
5. ARI 760 - Solenoid Valves for Use with Volatile Refrigerants.

B. American Society of Heating, Refrigerating and Air-Conditioning Engineers:
1. ASHRAE 15 - Safety Code for Mechanical Refrigeration.

C. American Society of Mechanical Engineers:
1. ASME B16.22 - Wrought Copper and Copper Alloy Solder Joint Pressure Fittings.
2. ASME B16.26 - Cast Copper Alloy Fittings for Flared Copper Tubes.
3. ASME B31.5 - Refrigeration Piping.
4. ASME Section VIII - Boiler and Pressure Vessel Code - Pressure Vessels.

D. ASTM International:
1. ASTM A53 - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
2. ASTM A234 - Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service.
3. ASTM B88 - Standard Specification for Seamless Copper Water Tube.
4. ASTM B280 - Standard Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service.
5. ASTM F708 - Standard Practice for Design and Installation of Rigid Pipe Hangers.
6. ASTM B749 - Standard Specification for Lead and Lead Alloy Strip, Sheet, and Plate Products.

E. American Welding Society:
1. AWS A5.8 - Specification for Filler Metals for Brazing and Braze Welding.
2. AWS D1.1 - Structural Welding Code - Steel.

F. Manufacturers Standardization Society of the Valve and Fittings Industry:
1. MSS SP 58 - Pipe Hangers and Supports - Materials, Design and Manufacturer.
2. MSS SP 69 - Pipe Hangers and Supports - Selection and Application.
3. MSS SP 89 - Pipe Hangers and Supports - Fabrication and Installation Practices.

G. Underwriters Laboratories Inc.:
   1. UL 429 - Electrically Operated Valves.

1.3 SYSTEM DESCRIPTION

A. Where more than one piping system material is specified, provide compatible system components and joints. Use non-conducting dielectric connections when joining dissimilar metals in systems.
B. Provide flanges, unions, or couplings at locations requiring servicing. Use unions, flanges, or couplings downstream of valves and at equipment connections. Do not use direct welded or threaded connections to valves or equipment.
C. Provide pipe hangers and supports in accordance with ASME B31.5, ASTM F708, MSS SP 58, MSS SP 69, and MSS SP 89.

1.4 SUBMITTALS

A. Division 01 and Section 23 05 00 "Submittal Procedures."
B. Product Data:
   1. Piping: Submit data on pipe materials, fittings, and accessories.
   2. Valves: Submit manufacturer's catalog information with valve data and ratings for each service.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with ASME B31.5 code for installation of refrigerant piping systems.
B. Perform Work in accordance with AWS D1.1 for welding hanger and support attachments to building structure.
C. Perform Work in accordance with State and local standards.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' documented experience.
B. Fabricator or Installer: Company specializing in performing Work of this Section with minimum 3 years' experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Dehydrate and charge refrigeration components including piping and receivers, seal prior to shipment. Maintain seal until connected into system.
B. Accept valves on site in shipping containers with labeling in place. Inspect for damage.
C. Provide temporary end caps and closures on piping and fittings. Maintain in place until installation.
D. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the Work, and isolating parts of completed system.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Do not install underground piping when bedding is wet or frozen.

1.9 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.10 WARRANTY

A. Division 01 and Section 23 05 00 "General Mechanical Requirements."

**PART 2 - PRODUCTS**

2.1 REFRIGERANT PIPING

A. Copper Tubing: ASTM B280, drawn.
   1. Fittings: ASME B16.22 wrought copper.
   2. Joints: Braze, AWS A5.8 BCuP silver/phosphorus/copper alloy with melting range 1,190 to 1,480 degrees F.

2.2 UNIONS, FLANGES, AND COUPLINGS

A. Two inches and Smaller:
   1. Copper Pipe: Bronze, soldered joints.
B. Dielectric Connections: Union with galvanized or plated steel threaded end, copper solder end, water impervious isolation barrier.

2.3 VALVES

A. Ball Valves:
   1. Two piece bolted forged brass body with teflon ball seals and copper tube extensions, brass bonnet and seal cap, chrome plated ball, stem with neoprene ring stem seals, soldered ends.
   2. Maximum working pressure: 500 psig.
   3. Maximum working temperature: 325 degrees F.
B. Service Valves:
   1. Forged brass body with copper stubs, brass caps, removable valve core, integral ball check valve, flared or solder ends.
   2. Maximum working pressure: 500 psig.
C. Refrigerant Check Valves:
   1. Straight Through Type:
      a. Spring, neoprene seat.
      b. Maximum working pressure: 500 psig.
      c. Maximum working temperature: 250 degrees F.

2.4 REFRIGERANT STRAINERS

A. Straight Line or Angle Line Type:
   1. Brass or steel shell, steel cap and flange, and replaceable cartridge, with screen of stainless steel wire or monel reinforced with brass.
   2. Maximum working pressure: 430 psig.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify excavations are to required grade, dry, and not over-excavated.

3.2 PREPARATION

A. Ream pipe and tube ends. Remove burrs.
B. Remove scale and dirt on inside and outside before assembly.
C. Prepare piping connections to equipment with flanges or unions.
D. Keep open ends of pipe free from scale and dirt. Protect open ends with temporary plugs or caps.

3.3 INSTALLATION - INSERTS

A. Provide inserts for placement in concrete forms.
B. Provide inserts for suspending hangers from reinforced concrete slabs and sides of reinforced concrete beams.
C. Provide hooked rod to concrete reinforcement section for inserts carrying pipe 4 inches and larger.
D. Where concrete slabs form finished ceiling, locate inserts flush with slab surface.
E. Where inserts are omitted, drill through concrete slab from below and provide through-bolt with recessed square steel plate and nut recessed into and grouted flush with slab.

3.4 INSTALLATION - PIPE HANGERS AND SUPPORTS

A. Refer to Section 22 05 09 "Hangers and Supports."

3.5 INSTALLATION - ABOVE GROUND PIPING SYSTEMS

A. Route piping parallel to building structure and maintain gradient.
B. Install piping to conserve building space, and not interfere with use of space.
C. Group piping whenever practical at common elevations.
D. Sleeve pipe passing through partitions, walls and floors. Refer to Section 23 05 00 "General Mechanical Requirements."
E. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.
F. Provide access where valves and fittings are not exposed.
G. Arrange refrigerant piping to return oil to compressor. Provide traps and loops in piping, and provide double risers as required. Slope horizontal piping 0.40 percent in direction of flow.
H. Flood refrigerant piping system with nitrogen when brazing.

I. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welds.
J. Install valves with stems upright or horizontal, not inverted.
K. Insulate piping ; refer to Section 23 07 05 "HVAC and Plumbing Installation."
L. Fully charge completed system with refrigerant after testing.

M. Follow ASHRAE 15 procedures for charging and purging of systems and for disposal of refrigerant.
N. Install refrigerant piping in accordance with ASME B31.5.

## 3.6 FIELD QUALITY CONTROL

A. Test refrigeration system in accordance with ASME B31.5.
B. Pressure test refrigeration system with dry nitrogen to 200 psig.
C. Repair leaks.
D. Retest until no leaks are detected.

## 3.7 SCHEDULES

A. Copper Tube Hanger Spacing:
   1. Pipe Size 1/2-Inch:
      a. Maximum Hanger Spacing: 5 feet.
      b. Hanger Rod Diameter: 3/8-inch.
   2. Pipe Size 3/4-Inch:
      a. Maximum Hanger Spacing: 5 feet.
      b. Hanger Rod Diameter: 3/8-inch.
   3. Pipe Size 1 Inch:
      a. Maximum Hanger Spacing: 6 feet.
      b. Hanger Rod Diameter: 3/8-inch.
   4. Pipe Size 1-1/4 Inches:
      a. Maximum Hanger Spacing: 7 feet.
      b. Hanger Rod Diameter: 3/8-inch
   5. Pipe Size 1-1/2 Inches:
      a. Maximum Hanger Spacing: 8 feet.
      b. Hanger Rod Diameter: 3/8-inch.
   6. Pipe Size 2 Inches:
      a. Maximum Hanger Spacing: 8 feet.
      b. Hanger Rod Diameter: 3/8-inch.
   7. Pipe Size 2-1/2 Inches:
      a. Maximum Hanger Spacing: 9 feet.
      b. Hanger Rod Diameter: 1/2-inch.
   8. Pipe Size 3 Inches:
      a. Maximum Hanger Spacing: 10 feet.
      b. Hanger Rod Diameter: 1/2-inch.
   9. Pipe Size 4 Inches:
      a. Maximum Hanger Spacing: 10 feet.
      b. Hanger Rod Diameter: 1/2-inch.

END OF SECTION

# SECTION 23 31 00 - HVAC DUCTS AND CASINGS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Duct materials.
   2. Ductwork fabrication.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCE STANDARDS

A. ASTM International:
   1. ASTM A36 - Standard Specification for Carbon Structural Steel.
   2. ASTM A90 - Standard Test Method for Weight Mass of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings.
   3. ASTM A167 - Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
   4. ASTM A568 - Standard Specification for Steel, Sheet, Carbon, Structural, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, General Requirements for.
   5. ASTM A653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
   6. ASTM A1008 - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable.
   7. ASTM A1011 - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength.
   8. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
   9. ASTM C14 - Standard Specification for Nonreinforced Concrete Sewer, Storm Drain, and Culvert Pipe.
   10. ASTM C443 - Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets.
   11. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

B. National Fire Protection Association:
   1. NFPA 90A - Standard for the Installation of Air-Conditioning and Ventilating Systems.
   2. NFPA 90B - Standard for the Installation of Warm Air Heating and Air-Conditioning Systems.

C. Sheet Metal and Air Conditioning Contractors' National Association:
   1. SMACNA 016 - HVAC Air Duct Leakage Test Manual.
   2. SMACNA 1966 - HVAC Duct Construction Standards - Metal and Flexible.

D. Underwriters Laboratories Inc.:
   1. UL 181 - Factory-Made Air Ducts and Air Connectors.

1.3 PERFORMANCE REQUIREMENTS

A. Variation of duct configuration or sizes other than those of equivalent or lower loss coefficient is not permitted except by written permission. Size round ducts installed in place of rectangular ducts in accordance with ASHRAE table of equivalent rectangular and round ducts.

1.4 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechnical Requirements."
B. Product Data: Submit manufacturer information for duct materials and, duct connectors.

C. Test Reports: Indicate pressure tests performed, including date, section tested, test pressure, and leakage rate according to SMACNA 016.
D. Manufacturer Installation Instructions:
   1. Submit special procedures for glass-fiber ducts.

1.5 CLOSEOUT SUBMITTALS

A. Project Record Documents:
   1. Record actual locations of ducts and duct fittings.
   2. Record changes in fitting location and type.
   3. Show additional fittings used.

1.6 QUALITY ASSURANCE

A. Perform Work according to SMACNA 1966.
B. Construct ductwork to NFPA 90A standards.

1.7 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' experience .

1.8 ENVIRONMENTAL REQUIREMENTS

A. Do not install duct sealant when temperatures are less than those recommended by sealant manufacturers.
B. Maintain temperatures during and after installation of duct sealant.

1.9 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrications.

1.10 WARRANTY

A. Section 23 05 00 "General Mechanical Requirements" for product warranties.

## PART 2 - PRODUCTS

2.1 DUCTS MATERIALS

A. Galvanized-Steel Ducts:
   1. Material: ASTM A653 galvanized-steel sheet.
   2. Quality: Lock forming.
   3. Finish: G90 zinc coating according to ASTM A90.

B. Fasteners: Rivets, bolts, or sheet metal screws.

2.2 FABRICATION

A. Rectangular Ducts:
   1. According to SMACNA 1966 and as indicated on Drawings.
   2. Provide duct material, gages, reinforcing, and sealing for indicated operating pressures.

B. Round Ducts:
   1. According to SMACNA 1966 and as indicated on Drawings.
   2. Seams: Longitudinal.
   3. Provide duct material, gages, reinforcing, and sealing for indicated operating pressures.

C. Tees, Bends, and Elbows:
   1. Minimum Radius:
      a. One and one half times centerline duct width.
      b. If not possible or if rectangular elbows are used, provide airfoil turning vanes.

D. Divergence:
   1. Increase duct sizes gradually, not exceeding 15 degrees of divergence wherever possible.
   2. Upstream of Equipment: Maximum 30 degrees.
   3. Downstream of Equipment: Maximum 45 degrees.

E. Takeoffs:
   1. Provide standard 45-degree lateral wye takeoffs.
   2. If not possible due to space limitations, provide 90-degree conical tee connections.

F. Sealing:
   1. Seal joints between duct sections and duct seams with welds, gaskets, mastic adhesives, mastic plus embedded fabric systems, or tape.
   2. Sealants, Mastics, and Tapes: Comply with UL 181A and provide products bearing appropriate UL 181A markings.
   3. Do not provide sealing products not bearing UL approval marking.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify sizes of equipment connections before fabricating transitions.

3.2 INSTALLATION

A. Install and seal ducts according to SMACNA 1966.
B. During construction, install temporary closure of metal or taped polyethylene on open ductwork to prevent construction dust from entering ductwork system.
C. Hanger and Supports:
   1. Fabricate and support ducts according to SMACNA 1966.
   2. Threaded Rods: Provide double nuts and lock washers.

3.3 INTERFACE WITH OTHER PRODUCTS

A. Install openings in ductwork where required to accommodate thermometers and controllers. Install Pitot tube openings for testing of systems. Install Pitot tube complete with metal can with spring device or screw to prevent air leakage. Where openings are provided in insulated ductwork, install insulation material inside metal ring.

3.4 SCHEDULES

A. Ductwork Material Schedule:

| AIR SYSTEM | MATERIAL |
|---|---|
| General Exhaust<br>Supply Air<br>Return Air | Steel |

B. Ductwork Pressure Class Schedule:

| AIR SYSTEM | MATERIAL |
|---|---|
| General Exhaust<br>Supply Air<br>Return Air | 1-inch wg regardless of velocity |

END OF SECTION

# SECTION 23 33 00 - AIR DUCT ACCESSORIES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Back-draft dampers.
   2. Duct access doors.
   3. Volume control dampers.
   4. Flexible duct connections.
   5. Duct test holes.

B. Related Sections:
   1. Division 01 Specification Section apply to Work of this Section.

### 1.2 REFERENCES

A. Air Movement and Control Association International, Inc.:
   1. AMCA 500 - Test Methods for Louvers, Dampers, and Shutters.

B. ASTM International:
   1. ASTM E1 - Standard Specification for ASTM Thermometers.

C. National Fire Protection Association:
   1. NFPA 90A - Standard for the Installation of Air Conditioning and Ventilating Systems.
   2. NFPA 92A - Recommended Practice for Smoke-Control Systems.

D. Sheet Metal and Air Conditioning Contractors:
   1. SMACNA - HVAC Duct Construction Standard - Metal and Flexible.

E. Underwriters Laboratories Inc.:
   1. UL 555 - Standard for Safety for Fire Dampers.
   2. UL 555C - Standard for Safety for Ceiling Dampers.
   3. UL 555S - Standard for Safety for Smoke Dampers.

### 1.3 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechanical Requirements."

B. Product Data: Submit data for shop fabricated assemblies and hardware used.

C. Product Data: Submit for the following. Include where applicable electrical characteristics and connection requirements.
   1. Fire dampers including locations and ratings.
   2. Smoke dampers including locations and ratings.
   3. Backdraft dampers.
   4. Flexible duct connections.
   5. Volume control dampers.
   6. Duct access doors.
   7. Duct test holes.

D. Product Data: For fire dampers, smoke dampers, or combination fire and smoke dampers submit the following:

1. Include UL ratings, dynamic ratings, leakage, pressure drop and maximum pressure data.
2. Indicate materials, construction, dimensions, and installation details.

E. Manufacturer's Installation Instructions: Submit for Fire and Combination Smoke and Fire Dampers.

1.4 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of access doors and test holes.
B. Operation and Maintenance Data: Submit for Combination Smoke and Fire Dampers.

1.5 QUALITY ASSURANCE

A. Dampers tested, rated and labeled in accordance with the latest UL requirements.
B. Damper pressure drop ratings based on tests and procedures performed in accordance with AMCA 500.
C. Perform Work in accordance with State and local standards.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum 3 years experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Protect dampers from damage to operating linkages and blades.
B. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly indicating manufacturer and material.
C. Storage: Store materials in a dry area indoor, protected from damage.
D. Handling: Handle and lift dampers in accordance with manufacturer's instructions. Protect materials and finishes during handling and installation to prevent damage.

1.8 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.9 COORDINATION

A. Coordinate Work where appropriate with building control Work.

1.10 WARRANTY

A. Section 23 05 00 "General Mechanical Requirements" for product warranties.

## PART 2 - PRODUCTS

### 2.1 BACK-DRAFT DAMPERS

A. Product Description: Multi-Blade, back-draft dampers: Parallel-action, gravity-balanced, Galvanized 16 gauge thick steel, or extruded aluminum. Blades, maximum 6-inch width, center pivoted, with felt or flexible vinyl sealed edges. Blades linked together in rattle-free manner with 90-degree stop, steel ball bearings, and plated steel pivot pin. Furnish dampers with adjustment device to permit setting for varying differential static pressure.

### 2.2 DUCT ACCESS DOORS

A. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated on Drawings.
B. Fabrication: Rigid and close fitting of galvanized steel with sealing gaskets and quick fastening locking devices. For insulated ductwork, furnish minimum 1-inch thick insulation with sheet metal cover.
   1. Less than 12 inches square, secure with sash locks.
   2. Up to 18 inches Square: Furnish two hinges and two sash locks.
   3. Up to 24 x 48 inches: Three hinges and two compression latches.
   4. Larger Sizes: Furnish additional hinge.
   5. Access panels with sheet metal screw fasteners are not acceptable.

### 2.3 VOLUME CONTROL DAMPERS

A. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated on Drawings.
B. Multi-Blade Damper: Fabricate of opposed blade pattern with maximum blade sizes 8- by 72-inch. Assemble center and edge crimped blades in prime coated or galvanized frame channel with suitable hardware.
C. End Bearings: Except in round ductwork 12 inches and smaller, furnish end bearings. On multiple blade dampers, furnish oil-impregnated nylon or sintered bronze bearings. Furnish closed end bearings on ducts having pressure classification over 2 inches wg.
D. Quadrants:
   1. Furnish locking, indicating quadrant regulators on single and multi-blade dampers.
   2. On insulated ducts mount quadrant regulators on standoff mounting brackets, bases, or adapters.
   3. Where rod lengths exceed 30 inches furnish regulator at both ends.

### 2.4 FLEXIBLE DUCT CONNECTIONS

A. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible.
B. Connector: Fabric crimped into metal edging strip.
   1. Fabric: UL listed fire-retardant neoprene coated woven glass fiber fabric conforming to NFPA 90A, minimum density 30 ounces per square yard.
   2. Net Fabric Width: Approximately 6 inches wide.
   3. Metal: 3-inch wide, 24 gauge galvanized steel.

2.5 DUCT TEST HOLES

A. Permanent Test Holes: Factory fabricated, air tight flanged fittings with screw cap. Furnish extended neck fittings to clear insulation.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verify rated walls are ready for fire damper installation.
B. Verify ducts and equipment installation are ready for accessories.
C. Check location of air outlets and inlets and make necessary adjustments in position to conform to architectural features, symmetry, and lighting arrangement.

3.2 INSTALLATION.

A. Install in accordance with NFPA 90A, and follow SMACNA HVAC Duct Construction Standards - Metal and Flexible. Refer to Section 23 31 00 "HVAC Ducts and Casings" for duct construction and pressure class.
B. Install Work in accordance with State and local standards.
C. Install back-draft dampers on exhaust fans or exhaust ducts nearest to outside and where indicated on Drawings.
D. Access Doors: Install access doors at the following locations and as indicated on Drawings:
    1. Before and after each duct mounted filter.
    2. Before and after each duct mounted coil.
    3. Before and after each duct mounted fan.
    4. Before and after each automatic control damper.
    5. Before and after each fire damper, smoke dampe,r or combination fire and smoke damper.
    6. Downstream of each VAV box.
    7. Install at locations for cleaning kitchen exhaust ductwork in accordance with NFPA 96.
E. Access Door Sizes: Install minimum 8- by 8-inch size for hand access, 18- by 18-inch size for shoulder access, and as indicated on Drawings. Review locations prior to fabrication.
    1. Mark access doors for fire and smoke dampers on outside surface, with minimum 1/2-inch high letters reading: FIRE/SMOKE DAMPER, SMOKE DAMPER, OR FIRE DAMPER.
F. Install temporary duct test holes and required for testing and balancing purposes. Cut or drill in ducts. Cap with neat patches, neoprene plugs, threaded plugs, or threaded or twist-on metal caps.
G. Install permanent duct test holes and required for testing and balancing purposes.

H. Install fire dampers, combination fire and smoke dampers,and smoke dampers at locations as indicated on Drawings. Install with required perimeter mounting angles, sleeves, breakaway duct connections, corrosion resistant springs, bearings, bushings and hinges.
    1. Install smoke dampers and combination smoke and fire dampers in accordance with NFPA 92A.
    2. Install dampers square and free from racking with blades running horizontally.

3. Do not compress or stretch damper frame into duct or opening.
4. Handle damper using sleeve or frame. Do not lift damper using blades, actuator, or jack shaft.
5. Install bracing for multiple section assemblies to support assembly weight and to hold against system pressure. Install bracing as needed.

## 3.3 DEMONSTRATION

A. Demonstrate re-setting of fire dampers to Owner's representative.

END OF SECTION

# SECTION 23 34 00 - HVAC FANS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Sidewalk propeller fans.
   2. Centrifugal square inline fans.

B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCES

A. American Bearing Manufacturers Association:
   1. ABMA 9 - Load Ratings and Fatigue Life for Ball Bearings.
   2. ABMA 11 - Load Ratings and Fatigue Life for Roller Bearings.

B. Air Movement and Control Association International, Inc.:
   1. AMCA 99 - Standards Handbook.
   2. AMCA 204 - Balance Quality and Vibration Levels for Fans.
   3. AMCA 210 - Laboratory Methods of Testing Fans for Aerodynamic Performance Rating.
   4. AMCA 300 - Reverberant Room Method for Sound Testing of Fans.
   5. AMCA 301 - Methods for Calculating Fan Sound Ratings from Laboratory Test Data.

C. American Refrigeration Institute:
   1. ARI 1060 - Air-to-Air Energy Recovery Ventilation Equipment Certification Equipment Program.

D. National Electrical Manufacturers Association:
   1. NEMA MG 1 - Motors and Generators.
   2. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).

E. Underwriters Laboratories Inc.:
   1. UL 705 - Power Ventilators.

### 1.3 SUBMITTALS

A. Section 23 05 00 " General Mechanical Requirements."

B. Product Data: Submit data on each type of fan and include accessories, fan curves with specified operating point plotted, power, RPM, sound power levels for both fan inlet and outlet at rated capacity, electrical characteristics and connection requirements.

C. Manufacturer's Installation Instructions: Submit fan manufacturer instructions.

D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

### 1.4 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: Submit instructions for lubrication, motor and drive replacement, spare parts list, and wiring diagrams.

1.5 QUALITY ASSURANCE

A. Performance Ratings: Conform to AMCA 210 and bear AMCA Certified Rating Seal.
B. Sound Ratings: AMCA 301, tested to AMCA 300 ,and bear AMCA Certified Sound Rating Seal.
C. UL Compliance: UL listed and labeled, designed, manufactured, and tested in accordance with UL 705.
D. Balance Quality: Conform to AMCA 204.
E. Perform Work in accordance with State and local standards.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this section with minimum 3 years' experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Protect motors, shafts, and bearings from weather and construction dust.

1.8 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.9 WARRANTY

A. Section 23 05 00 "General Mechanical Requirements" for product warranties.

1.10 EXTRA MATERIALS

A. Furnish two sets of belts for each fan.

**PART 2 - PRODUCTS**

2.1 SIDEWALL PROPELLER FANS

A. Manufacturers:
1. Greenheck Corporation..
2. Loren Cook Company.
3. Substitutions: Section 23 05 00 "General Mechanical Requirements."
B. General Description:
1. Fan arrangement shall be exhaust.
2. Sidewall mounted applications.
3. Each fan shall bear a permanently affixed manufacturer's engraved metal nameplate containing the model number and individual serial number.

C. Wheel:
   1. Propeller constructed of cast aluminum tapered airfoil blades and cast aluminum hubs.
   2. Securely attached to motor shaft with a standard square key, set screw, and tapered bushing.
   3. Statically and dynamically balanced in accordance with AMCA Standard 204-05.
   4. The propeller and fan inlet will be meatched and shall have precise running tolerances for maximum performance and operating efficiency.

D. Motors:
   1. Electronically Commutated Motor:
      a. Motor Enclosure: Open drip proof.
      b. Motor to be a DC electronic commutation type motor (ECM) specially designed for fan application.
      c. Motors are permanently lubricated, heavy duty ball bearing type to match with the fanload and pre-wired to the specific voltage and phase.
      d. Internal motor circuitry to convert AC power supplied to the fan to DC power to operate the motor.
      e. Motor shall be speed controllable down to 20 percent of full speed (80 percent turndown). Speed shall be controlled by either apotentiometer dial mounted at the motor or by a 0-10 VDC signal.
      f. Motor shall be a minimum of 85 percent efficient at all speeds.

E. Drive Frame:
   1. Frames and panels shall be bolted construction.
   2. Drive fram assemblies and fan panels shall be galvanized steel or inted steel.
   3. Drive frame shall have formed channels and fan panels shall have pre-punched mounting holes, formed flanges, and a deep formed one-piece inlet venturi.

F. Options/Accessories:
   1. Damprs:
      a. Type: WD-320, Gravity.
      b. Prevents outside air from entering back into the building when fan is off.
      c. Balanced for minimal resistance to flow.
      d. Galvanized frames with pre-puched mounting holes.
   2. Discharge Diffusers:
      a. Constructed of heavy gauge galvanized steel frame and blades.
      b. Shall have pre-punch moutning flanges.
      c. Designed to mount to the interior end of the wall housing when used in supply configuration.
   3. Wall Housing:
      a. Fan panel will be mounted vertically drecting the air horizontally out of the building. Wall housing will be mounted in a manner that will not have any housing protruding outside the building. Motor and drives will be accessible from the interior of the building.
      b. Construct3ed of galvanized steel with heavy gauge mounting flanges and pre-punches mounting holds.
      c. Housing shall include OSHA approved motor guard.
      d. Reduces installation time and provides maximum installation flexibility.

4. Weather Hood:
    a. Shall shield wall opening and dampers from rain and snow.
    b. Material Type: Galvanized.
    c. Turndown Angle: 45 degrees.
    d. 1/2- by 1/2-inch weld wire birdscreen.

## 2.2 CENTRIFUGAL SQUARE INLINE FANS

A. Manufacturers:
    1. Greenheck Fan Corporation.
    2. Loren Cook Company.
    3. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements."
B. General Description:
    1. Base fan performance at standard conditions (density 0.075 pounds per cubed feet).
    2. Normal operating temperature up to 130 degrees F.
    3. Applications include intake, exhaust, return, or makeup air systems.
    4. Each fan shall bear a permanently affixed manufacturer's engraved mmetal nameplate containing the model number and individual serial number.
C. Fan Wheel:
    1. Backward inclined centrifugal type.
    2. Aluminum construction.
    3. Statically and dynamically balanced in accordance to AMCA Standard 204-05.
    4. The wheel cone and fan inlet will be matched and shall have precise running tolerances for maximum performance and operating efficiency.
    5. Single thickness blades are securely riveted or welded to a heavy gauge back plate and wheel cone.
D. Electronically Commutated Motor:
    1. Motor Enclosure: Open drip proof..
    2. Motor to be a DC Electronic Commutation Type Motor (ECM) specifically designed for fan applications. AC induction type motors are not acceptable. Examples of unacceptable motors are Shaded Pole, Permanent Split Capacitor (PSC), Split Phase, Capacitor Start, and 3-phase induction type motors.
    3. Motors are permanently lubricated, heavy duty ball bearing type to match with fan load and pre-wired to the specific voltage and phase.
    4. Internal motor circuitry to convert AC power supplied to the fan to DC power to operate the motor.
    5. Motor shall be speed controllable down to 20 percent of full speed (80 percent turndown). Speed shall be controlled by either a potentiometer dial mounted at the motor or by a 1-10 VDC signal.
    6. Motor shall be a minimum of 85 percent efficient at all speeds.
E. Housing/Cabinet Construction:
    1. Square design constructed of heavy gauge galvanized steel and shall include square duct mounting collars.
    2. Housing and bearing supports shall be constructed of heavy gauge bolted and welded steel construction to prevent vibration and to rigidly support the shaft and bearing assembly.
    3. Galvanized construction material
F. Housing Supports and Drive Frame:
    1. Housing supports are constructed of structural steel with formed flanges.
    2. Drive frame is welded steel which supports the motor.

G. Disconnect Switches:
   1. NEMA Rated: NEMA 1: Indoor application no water. Factory standard.
   2. Positive electrical shut-off.
   3. Wired from fan motor to junction box.

H. Duct Collars:
   1. Square design to provide a large discharge area.
   2. Inlet and discharge collars provide easy duct conection.

I. Access Panel: Two-sided access panels, permit easy access to all internal components.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verify roof curbs are installed and dimensions are as instructed by manufacturer.

3.2 INSTALLATION

A. Secure roof fans with cadmium plated steel lag screws to roof curb.
B. Install backdraft dampers on inlet to roof exhaust fans.
C. Install safety screen where inlet or outlet is exposed.
D. Provide sheaves required for final air balance.

3.3 DEMONSTRATION

A. Demonstrate fan operation and maintenance procedures.

3.4 PROTECTION OF FINISHED WORK

A. Do not operate fans for until ductwork is clean, filters in place, bearings lubricated, and fan has been test run under observation.

END OF SECTION

# SECTION 23 37 00 - AIR OUTLETS AND INLETS

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Diffusers.
   2. Registers
   3. Grilles.
   4. Louvers.
B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. Air Movement and Control Association International, Inc.:
   1. AMCA 500 - Test Methods for Louvers, Dampers, and Shutters.
B. American Society of Heating, Refrigerating and Air-Conditioning Engineers:
   1. ASHRAE 70 - Method of Testing for Rating the Performance of Air Outlets and Inlets.
C. Sheet Metal and Air Conditioning Contractors:
   1. SMACNA - HVAC Duct Construction Standard - Metal and Flexible.

1.3 SUBMITTALS

A. Division 01 and Section 23 05 00 "General Mechanical Requirements" for Submittal Procedures.
B. Product Data: Submit sizes, finish, and type of mounting. Submit schedule of outlets and inlets showing type, size, location, application, and noise level.
C. Test Reports: Rating of air outlet and inlet performance.
D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Closeout procedures.
B. Project Record Documents: Record actual locations of air outlets and inlets.

1.5 QUALITY ASSURANCE

A. Test and rate diffuser, register, and grille performance in accordance with ASHRAE 70.
B. Test and rate louver performance in accordance with AMCA 500.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum 3 years' documented experience.

1.7 WARRANTY

A. Section 01 70 00 "Execution and Closeout Requirements" for product warranties and product bonds.

**PART 2 - PRODUCTS**

2.1 DIFFUSERS, GRILLES, AND REGISTERS

A. Manufacturers:
1. Nailor.
2. Titus.
3. Price.
4. Substitutions: Section 23 05 00 "General Mechanical Requirements."

2.2 LOUVERS

A. Manufacturers:
1. Cesco Products.
2. Greenheck Fan Corporation.
3. Pottorff.
4. Ruskin Company.
5. Substitutions: Section 23 05 00 "General Mechanical Requirements."

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verify inlet and outlet locations.
B. Verify ceiling or wall systems are ready for installation.

3.2 INSTALLATION

A. Install diffusers to ductwork with airtight connection.
B. Install balancing dampers on duct take-off to diffusers, grilles, and registers, whether or not dampers are furnished as part of diffuser, grille, and register assembly.
C. Paint visible portion of ductwork behind air outlets and inlets matte black.
D. Do not locate air registers, diffusers or grilles in floors of toilet or bathing rooms.

3.3 INTERFACE WITH OTHER PRODUCTS

A. Check location of outlets and inlets and make necessary adjustments in position to conform to architectural features, symmetry, and lighting arrangement.

3.4 SCHEDULES

A. Refer to Drawings for all schedules.

END OF SECTION

# SECTION 23 81 26.20 - SPLIT-SYSTEM HEAT PUMPS

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Air handling unit.
   2. Condensing unit.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 23 05 00 "General Maintenance Requirements."
   3. Division 26 Electrical.

1.2 REFERENCES

A. Air-Conditioning and Refrigeration Institute:
   1. ARI 210/240 - Unitary Air-Conditioning and Air-Source Heat Pump Equipment.
   2. ARI 270 - Sound Rating of Outdoor Unitary Equipment.
   3. ARI 340/360 - Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment.
B. American Society of Heating, Refrigerating and Air-Conditioning Engineers:
   1. ASHRAE 52.1 - Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter.
C. National Fire Protection Association:
   1. NFPA 90A - Standard for the Installation of Air Conditioning and Ventilating Systems.

1.3 SUBMITTALS

A. Refer to Division 01 and Section 23 05 00 “General Mechanical Requirements” for submittals.
B. Product Data: Submit data indicating:
   1. Cooling and heating capacities.
   2. Dimensions.
   3. Weights.
   4. Rough-in connections and connection requirements.
   5. Duct connections.
   6. Electrical requirements with electrical characteristics and connection requirements.
   7. Controls.
   8. Accessories.
C. Manufacturer's Installation Instructions: Submit assembly, support details, connection requirements, and include start-up instructions.
D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of controls installed remotely from units.
B. Operation and Maintenance Data: Submit manufacturer's descriptive literature, operating instructions, installation instructions, and maintenance and repair data.

1.5 QUALITY ASSURANCE

A. Cooling Capacity: Rate in accordance with ARI 210/240.
B. Sound Rating: Measure in accordance with ARI 270.
C. Insulation and adhesives: Meet requirements of NFPA 90A.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Accept units and components on site in factory protective containers, with factory shipping skids and lifting lugs. Inspect for damage.
B. Protect units from weather and construction traffic by storing in dry, roofed location.

1.8 WARRANTY

A. Furnish 5 year manufacturer's warranty for compressors.

**PART 2 - PRODUCTS**

2.1 MINI SPLIT SYSTEM AIR CONDITIONING UNITS

A. Manufacturers:
   1. Carrier Corp.
   2. Daikin.
   3. Mitsubishi Electric.
   4. L.G.
   5. Samsung.
   6. Substitutions: Refer to Section 23 05 00 “General Mechanical Requirements.”
B. Wall-Mounted Indoor Unit:
   1. Indoor unit shall be factory assembled, wired, and run tested. Contained within the unit shall be all factory wiring, piping, control circuit board and fan motor. The unit shall have a self-diagnostic function, 3-minute time delay mechanism, an auto restart function, an emergency operation function, and a test run switch. Indoor unit and refrigerant pipes will be charged with dry air instead of refrigerant, before shipment from factory.

2. Unit Cabinet:
    a. Casing shall have a white finish.
    b. Multi-directional drain and refrigerant piping offering four directions for refrigerant piping and two directions for draining shall be standard.
    c. There shall be a separate back plate which secures the unit firmly to the wall.
3. Fan:
    a. Evaporator fan shall be an assembly with a line-flow fan directly driven by a single motor.
    b. Fan shall be statically and dynamically balanced and run on a motor with permanently lubricated bearings.
    c. A manual adjustable guide vane shall be provided with ability to change the airflow from side to side (left to right).
    d. A motorized air sweep flow louver shall provide an automatic change in airflow by directing the air up and down to provide for uniform air distribution.
    e. Indoor fan shall consist of three speeds: high, medium, and low.
4. Filter: Return air shall be filtered by means of an easily removable washable filter.
5. Coil:
    a. Evaporator coil shall be of nonferrous construction with smooth plate fins on copper tubing.
    b. Tubing shall have inner grooves for high efficiency heat exchange.
    c. All tube joints shall be brazed with phos copper or silver alloy.
    d. Coils shall be pressure tested at the factory.
    e. A condensate pan and drain shall be provided under the coil.
6. Electrical:
    a. Unit shall be powered from the outdoor unit.
    b. Indoor unit shall not have any supplemental electrical heat elements.
7. Control: Provide 7-day electronic programmable WIFI thermostat.
    a. This unit shall have a wireless controller to perform input functions necessary to operate the system.
    b. Controller shall consist of a power on/off switch, model selector, temperature setting, time control, fan speed select, and auto vane selector.
    c. Temperature changes shall be by 2 degrees F increments with a range of 59 to 89 degrees F.
    d. Microprocessor located in the indoor unit shall have the capability of sensing return air temperature and indoor coil temperature, receiving and processing commands from the wireless controller, providing emergency operation, and controlling the outdoor unit.
    e. System shall be capable of automatic restart when power is restored after power interruption.
    f. Control system shall control the continued operation of the air sweep louvers, as well as provide on/off and system/mode function switching.

C. Outdoor Unit:
1. Outdoor unit is designed specifically for use with the indoor units. The unit must have a powder coating finish. Outdoor unit shall be completely factory assembled, piped, and wired. Each unit must be run tested at the factory.
2. Unit Cabinet: casing shall be fabricated of galvanized steel, bonderized, and finished with a powder coating baked enamel. Provide with manufacturer's hail guard.
3. Fan:
    a. Unit shall be furnished with a direct drive propeller-type fan.
    b. Motor shall have inherent protection by permanently lubricated bearings.

c. Fan motor shall be mounted for quiet operation.
d. Fan shall be provided with a raised guard to prevent contact with moving parts.
e. Outdoor unit shall have a horizontal discharge airflow.

4. Coil:
   a. Condenser coil shall be nonferrous construction with lanced or corrugated plate fins on copper tubing.
   b. Coil shall be protected with an integral metal guard.
   c. Refrigerant flow from the condenser shall be controlled by means of a metering orifice.
   d. Provide with either a factory installed or field installed hail screen.
5. Compressor:
   a. Compressor shall be a high-performance rotary.
   b. Outdoor unit shall have an accumulator.
   c. Compressor will be equipped with an in internal thermal overload.
   d. Outdoor unit must have the ability to operate with a maximum height difference of 25 feet and have refrigerant tubing length of 49 feet between indoor and outdoor units with the need for line size changes, traps, or additional oil.
   e. Compressor shall be mounted to avoid the transmission of vibration.
6. Electrical:
   a. Unit electrical power shall be as scheduled.
   b. Outdoor unit shall be controlled by the microprocessor located in the indoor unit.

2.2 ELECTRICAL CHARACTERISTICS AND COMPONENTS

A. Electrical Characteristics: In accordance with Division 26 Electrical.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify piping rough-in is at correct location.
B. Verify electrical rough-in is at correct location.

3.2 INSTALLATION

A. Install refrigerant piping from unit to remote condensing unit. Install refrigerant specialties furnished with unit.
B. Pipe condensate from drain pan to condensate drainage system. Refer to Drawings.
C. Install accessories furnished loose for field mounting.
D. Install electrical devices furnished loose for field mounting.
E. Install control wiring between unit control panel and field mounted control devices.

3.3 CLEANING

A. After construction is completed, clean exposed surfaces of units.
B. Vacuum clean coils and inside of unit cabinet.
C. Touch-up marred or scratched surfaces of factory finished cabinets using finish materials furnished by manufacturer.

3.4 DEMONSTRATION

A. Demonstrate unit operation and maintenance.
B. Furnish services of manufacturer's technical representative for 2 hours to instruct Owner's personnel in operation and maintenance of units. Schedule training with Owner, provide at least 7 days notice of training date.

3.5 PROTECTION OF FINISHED WORK

A. Protect finished surfaces of cabinets with protective covers during remainder of construction.

END OF SECTION

# SECTION 23 82 39 - UNIT HEATERS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section includes suspended heaters with electric-resistance heating coils.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCES

A. American Society of Heating, Refrigerating and Air-Conditioning Engineers:
   1. ASHRAE 90.1 – Energy Standard for Buildings Except Low-Rise Residential Buildings.
   2. ASHRAE 33: Method of Testing Forced Circulation Air Cooling and Heating Coils.
B. National Fire Protection Association:
   1. NFPA 70: National Electrical Code.
   2. NFPA 90A: Standard for the Installation of Air Conditioning and Ventilating Systems.
   3. NFPA 90B: Standard for the Installation of Warm Air Heating and Air Conditioning Systems.
C. UL LLC:
   1. UL 823: Standard for Electric Heaters for Use in Hazardous (Classified) Locations.
   2. UL 1995: Heating and Cooling Equipment.
   3. UL 2021: Fixed and Location-Dedicated Electric Room Heaters.

### 1.3 SUBMITTALS

A. Division 01 and Section 23 05 00 “General Mechanical Requirements” for submittals.
B. Product Data: Submit manufacturer’s literature and data indicating rated capacities, weights, accessories, electrical nameplate data, and wiring diagrams.
C. Manufacturer’s Installation Instructions: Submit/indicate rigging and assembly.
D. Manufacturer’s Certificate: Certify products meet or exceed specified requirements.

### 1.4 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: Submit manufacturer’s descriptive literature, operating instructions, maintenance and repair data, and parts listing.

### 1.5 QUALITY ASSURANCE

A. Perform Work in accordance with State and local standards.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' experience.
B. Installer: Company specializing in performing Work of this Section with minimum 3 years' experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Accept heaters and controls on site in factory packaging. Inspect for damage.

1.8 FIELD MEASURMENTS

A. Verify field measurements prior to fabrication.

**PART 2 - PRODUCTS**

2.1 ELECTRIC RESISTANCE CEILING HEATERS

A. Manufacturers:
   1. Reznor.
   2. Markel.
   3. Substitutions: Refer to Section 23 05 00 "General Mechanical Requirements" for substitutions.
B. Self-contained, packaged, factory assembled, prewired unit consisting of cabinet, supply fan, heater exchanger, controls and accessories:
   1. Discharge Louvers: Flat ribbon wire, stamped-steel, or extruded aluminum grille.
   2. Control Voltage: 24 Volt, 60 Hertz.
   3. Location: Suspended mount.
   4. Heat ON indicator light.
C. Cabinet: Galvanized steel, corrosion resistant baked enamel finish, easily removed and secured access panels, insulated or double panel construction, constructed to fit into a ceiling.
D. Supply Fan: Propeller type with direct drive.
E. Heat Exchanger: Nickel-chromium-wire heating element enclosed in metallic sheath mechanically bonded into fins, or stainless steel tubular elements with aluminum fins, with automatic, integrated high-temperature cutout and overheat reset sensor. Element supports shall eliminate thermal expansion noise.
F. Controls:
   1. Thermostat integral to heater.
G. Motor Type: Permanently lubricated, totally enclosed, thermally protected, continuous duty.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas to receive unit heaters for compliance with requirements for installation tolerances and other conditions affecting performance.

3.2 INSTALLATION

A. Install units in accordance with NFPA 90B and NFPA 70.
B. Provide hangers and supports for suspended units. Refer Section 23 05 29 “Hangers and Supports for HVAC Piping and Equipment.”
C. Provide operating controls.
D. Provide connection to electrical power systems. Refer to Division 26.

END OF SECTION

# SECTION 26 05 00 - BASIC ELECTRICAL METHODS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REQUIREMENTS OF REGULATORY AGENCIES AND STANDARDS

A. Regulatory Agencies: Installation, materials, equipment and Workmanship shall conform to the applicable provisions of the following:
B. National Electrical Code (NEC).
C. National Electrical Safety Code (NESC).
D. Terms and conditions of the electrical utility and other authorities having lawful jurisdiction pertaining to the Work required.
E. All temperature control wiring and associated conduit and boxes, shall be provided under other Sections of the Specifications. All power and control wiring, not identified under Divisions 22 and 23, shall be provided under Division 26.
F. The Work covered by Division 26 of the Specifications includes the furnishing of all materials, labor, transportation, tools, permits, and fees for the complete installation of all electrical Work required in the Contract Drawings.
G. In the event that additional or special construction is required, Contractor is responsible for providing all material and equipment which are usually furnished with such construction in order to complete the installation, whether indicated or not.
H. Contractor shall familiarize himself with the existing conditions of the Site and advise Architect/Engineer of any discrepancy or conflict prior to bidding.
I. Contractor shall be responsible for all permits, fees, and licenses required for the Project. All cost of such permits or fees shall be included in the bid.
J. All equipment and material shall be installed in accordance with applicable manufacturer's recommendations and standards.
K. Install sleeves, sealant pans, and roof penetrations as required for the installation of the electrical Work. All such Work is subject to the approval of Architect/Engineer.
L. Contractor shall be responsible for coordinating with the utility service provider to verify all locations, routing, equipment and labor that will be furnished as a part of this Contract.
M. Any fees or charges associated with delivering permanent power for the Project shall be included in Contractor's bid.

### 1.3 SUBMITTALS

A. The intent of this Section is to give general submittal information; refer to specific submittal information in the subsequent Mechanical Sections.

B. Within 10 days after award of the Contract, and before orders are placed, Contractor shall submit specific information on list of equipment and principal materials specified. Contractor shall indicate and/or provide names of manufacturers, catalog and model numbers, cut sheets, and such other supplementary information as necessary for evaluation. Minimum of six copies, or as directed by Architect/Engineer, of each shall be submitted and shall include all items mentioned by model number and/or manufacturer's name in the Specifications or in schedules on the Drawings.

C. Requirements for Each Submittal:
   1. Bear a dated stamp or specific written indication that Contractor has reviewed and approved all submittal prior to submission to Architect/Engineer.
   2. Have all information deleted by Contractor that pertains to the means and methods of construction or to fabrication, assembly, installation, or erection (approval by Architect/Engineer shall not extend to these areas unless specifically noted by Architect/Engineer).
   3. Be clearly and SPECIFICALLY marked as to which specific piece of equipment is being submitted, by use of a permanent marker, stamp, etc., so as to distinguish it from other pieces of equipment that may occur on the same page.
   4. Be clearly marked as to which available options are being submitted that are associated with a piece of equipment.
   5. Be complete with respect to quantities, dimensions, specific performance, materials, and similar data to enable Architect/Engineer to review the proposed equipment.

D. Omission by Contractor of any of the above requirements or submittals will subject submittal to automatic rejection without review.

E. Any submittals received by Architect/Engineer that were not requested shall be returned without review of any kind.

## PART 2 - PRODUCTS

### 2.1 EQUIPMENT REQUIREMENTS

A. The electrical requirements for equipment specified or indicated on the Drawings are based on information available at the time of design. If equipment furnished for installation has electrical requirements other than indicated on the Electrical Drawings, Contractor shall make any required changes to wire and conduit size, controls, overcurrent protection, and installation as required to accommodate the equipment supplied, without additional charge to Owner. The complete responsibility and costs for such adjustments shall be assigned to the respective Section of this Specification under which the equipment is furnished.

### 2.2 MATERIALS

A. All similar materials and equipment shall be the product of the same manufacturer unless specified otherwise.

B. Materials and equipment shall be the standard products of manufacturers regularly engaged in the production of such material and shall be the manufacturer's current and standard design.

C. Altitude: Equipment affected by altitude shall perform satisfactorily for the function intended at the altitude of the Project Site.

D. Detectable Warning Tape: Acid and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, minimum 6-inch-wide and 4 mils thick, continuously inscribed with a description of utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inch deep; colored as follows:
   1. Red: Electric.
   2. Yellow: Gas, oil, steam, and dangerous materials.
   3. Orange: Telephone and other communications.
   4. Blue: Water systems.
   5. Green: Sewer systems.

E. Backfill Material:
   1. Material 4 inches below and 12 inches above pipes and conduit shall be natural or manufactured sand complying to ASTM C33.
   2. Material more than 12 inches above pipes and conduits shall be sand indicated above or native fill free of rock or gravel larger than 3/8-inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.

## PART 3 - EXECUTION

### 3.1 GENERAL

A. Fabrication, erection, and installation of the complete electrical system shall be done in accordance with accepted good practice by qualified personnel experienced in such Work and shall proceed in an orderly manner so as not to impede the progress of the Project. Electrical Contractor shall check all areas and surfaces where electrical equipment material is to be installed, removed, or relocated and report any unsatisfactory conditions before starting Work. Commencement of Work signifies this Contractor's acceptance of existing conditions. In the acceptance or rejection of the finished installation, no allowance will be made for lack of skill on the part of Workers. Surfaces requiring coatings will be completed prior to installation of any electrical Work on these surfaces.

B. The Electrical Drawings are diagrammatic. The installation requirements shall be carefully coordinated with structural, architectural, and mechanical conditions and shall be adjusted to avoid conflict.

C. All Work shall be concealed in walls, ceilings, and chases unless specifically noted to be exposed or otherwise approved.

D. The locations of electrical equipment are approximate and are not intended to convey the exact details and mounting of location of outlets, equipment, and other items. Exact locations are to be field determined by actual measurements.

E. The location height and projection of fixtures illuminating signs or special features shall be approved by Architect/Engineer prior to installation.

F. Contractor shall coordinate the location of all exterior fixtures with architectural Drawings and Specifications.

G. Consult architectural Drawings to determine wall finishes and locations of wall-mounted equipment, countertop splashes, and similar items to avoid conflict with electrical equipment. At locations where surface or pendant mounted light fixtures are noted, provide for all necessary framing channels, pendants, chains, canopies, and other hardware as required for a complete and operable system.

H. Protect subgrades and foundation soils against freezing temperatures or frost. Provide protective insulating materials as necessary.

I. Excavation for Pipe and Conduit:
   1. Excavate trenches to indicated gradients, lines, depths, and elevations.
   2. Excavate trenches to uniform widths to provide a Working clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit, unless otherwise indicated.
   3. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
      a. For pipes and conduit less than 6 inches in nominal diameter and flat-bottomed, multiple-duct conduit units, hand excavate trench bottoms and support pipe and conduit on an undisturbed subgrade.
      b. For pipes and conduit 6 inches or larger in nominal diameter, shape bottom of trench to support bottom 90 degrees of pipe circumference. Fill depressions with tamped sand backfill.
      c. Excavate trenches 4 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.
   4. Place backfill and fill materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
   5. Compact soil to not less than the following percentages of maximum dry unit weight according to ASTM D698:
      a. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill material at 95 percent.
      b. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill material at 92 percent.
      c. Under lawn or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill material at 85 percent.
   6. Install detectable warning tape above conduits and pipe, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.
   7. Protection:
      a. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
      b. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
         1) Scarify or remove and replace soil material to depth as directed by Architect/Engineer; reshape and recompact.
      c. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
         1) Restore appearance, quality, and condition of finished surfacing to match adjacent Work, and eliminate evidence of restoration to the greatest extent possible.

8. Disposal of Surplus and Waste Materials:
    a. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property unless otherwise directed by Owner.
    b. Repair: Any damage to shrubs, grass or structures shall be repaired to previous condition by Contractor at no additional expense to Owner.

J. It shall be the responsibility of Division 26 Contractor to provide for all disconnecting and motor control devices for all equipment. Contractor shall coordinate to determine voltage, phase, and configurations. Any changes necessary to coordinate these items between Divisions 22, 23, and 26 shall be considered part of this Contract.

K. Division 26 Contractor shall be responsible for providing for all power requirements associated with the mechanical systems including power, control devices, smoke dampers, etc. Refer to Division 22 and 23 Drawings for locations and requirements. Connect all smoke dampers to the fire alarm control panel.

## 3.2 PERFORMANCE TESTS

A. Thoroughly test all control circuits, fixtures, services, and all circuits for proper operating condition and freedom from grounds and short circuits before acceptance is requested. All equipment, appliances, and devices shall be operated under load conditions.

B. After the interior wiring system installation is complete conduct operating tests for approval. When requested, test all the wire, cable, devices, and equipment after installation, to assure that all material continues to possess all the original characteristics as required by governing codes and standards listed in these Specifications.

C. After motor operation has been verified make voltage readings at all panelboards and starters. Based on these readings, make final adjustments of primary taps on all transformers in the building as directed, or coordinate with the utility proper building voltage.

D. Perform such other tests as required by other Sections of these Specifications or as requested to prove acceptability.

E. Furnish all instruments and labor for testing.

F. All material installed shall be listed, inspected, and approved by a nationally accepted testing laboratory such as UL and/or ETL. All material shall bear the UL or ETL label where available.

## 3.3 SUBMITTAL AND APPROVAL OF MATERIALS

A. All requirements for submittals shall comply with the applicable provisions included in the individual Specification Sections.

B. Unless identified as a sole source item, the listing of product manufacturers, catalog numbers, etc., on Drawings is intended to establish a standard of quality of the product. It is the responsibility of Contractor to review all items he intends to submit. If equipment other than that indicated on Drawings is proposed by Contractor, the information will be reviewed at the time of the submission of the submittal.

END OF SECTION

# SECTION 26 05 13 - BUILDING WIRE AND CABLE

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Building wire and cable.
   2. Wiring connectors and connections.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 01 40 00 "Quality Requirements" for requirements for references and standards.
   3. Section 26 05 53 "Electrical Identification."

### 1.2 REFERENCES

A. NECA Standard of Installation (National Electrical Contractors Association).
B. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems (International Electrical Testing Association).
C. NFPA 70 - National Electrical Code.

### 1.3 SUBMITTALS FOR REVIEW

A. Refer to Section 01 33 00 "Submittal Procedures" for procedures for Submittals.
B. Product Data: Provide for each cable assembly type.

### 1.4 SUBMITTALS FOR INFORMATION

A. Refer to Section 01 33 00 "Submittal Procedures" for procedures for Submittals.
B. Test Reports: Indicate procedures and values obtained.
C. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements.

### 1.5 SUBMITTALS AT PROJECT CLOSEOUT

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for procedures for submittals.
B. Project Record Documents: Record actual locations of components and circuits.

### 1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' documented experience.

1.7 REGULATORY REQUIREMENTS

A. Conform to NFPA 70.
B. Furnish products listed and classified by UL as suitable for the purpose specified and indicated.

1.8 FIELD SAMPLES

A. Provide under provisions of Section 01 40 00 "Quality Requirements."

1.9 PROJECT CONDITIONS

A. Refer to Section 01 30 00 "Administrative Requirements."
B. Verify that field measurements are as indicated.
C. Conductor sizes are based on copper.
D. Wire and cable routing indicated is approximate unless dimensioned.

1.10 COORDINATION

A. Coordinate Work under provisions of Section 01 30 00 "Administrative Requirements."
B. Where wire and cable destination is indicated and routing is not shown, determine exact routing and lengths required.

**PART 2 - PRODUCTS**

2.1 BUILDING WIRE

A. Manufacturers:
   1. American Cable.
   2. Houston Wire and Cable.
   3. Southwire.
   4. Substitutions: Refer to Section 01 60 00 "Product Requirements."
B. Description: Single conductor insulated wire.
C. Conductor: Copper.
D. Insulation Voltage Rating: 600 volts.
E. Insulation: NFPA 70, Type indicated herein.
F. MC Cable: Shall not be utilized on this Project.

2.2 WIRING CONNECTORS

A. Split Bolt Connectors:
   1. Buchanan.
   2. Burndy.
   3. Ilsco.
   4. Substitutions: Refer to Section 01 60 00 "Product Requirements."

B. Solderless Pressure Connectors:
   1. Buchanan.
   2. Burndy.
   3. Ilsco.
   4. Substitutions: Refer to Section 01 60 00 "Product Requirements."
C. Spring Wire Connectors:
   1. Ideal.
   2. Substitutions: Refer to Section 01 60 00 "Product Requirements."
D. Compression Connectors:
   1. Buchanan.
   2. Burndy.
   3. Ilsco.
   4. Substitutions: Refer to Section 01 60 00 "Product Requirements."

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Refer to Section 01 30 00 "Administrative Requirements" for verification of existing conditions before starting Work.
B. Verify that interior of building has been protected from weather.
C. Verify that mechanical Work likely to damage wire and cable has been completed.
D. Verify that raceway installation is complete and supported.

### 3.2 PREPARATION

A. Completely and thoroughly swab raceway before installing wire.

### 3.3 WIRING METHODS

A. Concealed Dry Interior Locations: Use only building wire, Type THHN/THWN insulation, in raceway.
B. Exposed Dry Interior Locations: Use only building wire, Type THHN/THWN insulation, in raceway.
C. Above Accessible Ceilings: Use only building wire, Type THHN/THWN insulation, in raceway.
D. Wet or Damp Interior Locations: Use only building wire, Type THHN/THWN insulation, in raceway.
E. Exterior Locations: Use only building wire, Type THHN/THWN insulation, in raceway.
F. Use wiring methods indicated.

### 3.4 INSTALLATION

A. Refer to Section 01 40 00 "Quality Requirements" for manufacturer's instructions.
B. Route wire and cable as required to meet Project Conditions.
C. Install cable in accordance with the NECA "Standard of Installation."
D. Use solid conductor for feeders and branch circuits 10 AWG and smaller.

E. Use stranded conductors for control circuits.
F. Use conductor not smaller than 12 AWG for power and lighting circuits with the exception of premanufactured fixture whips, listed for such use and not exceeding 6 feet in length.
G. Use conductor not smaller than 14 AWG for control circuits.
H. Use 10 AWG conductors for 20 ampere, 120 volt branch circuits longer than 100 feet and as indicated on the Drawings.
I. Install all conductors in conduit.
J. Pull all conductors into raceway at same time.
K. Use suitable wire pulling lubricant for building wire 4 AWG and larger.
L. Protect exposed cable from damage.
M. All cables shall be neatly supported.
N. Use suitable cable fittings and connectors.
O. Neatly train and lace wiring inside boxes, equipment, and panelboards.
P. Clean conductor surfaces before installing lugs and connectors.
Q. Make splices, taps, and terminations to carry full ampacity of conductors with no perceptible temperature rise.
R. Use split bolt connectors for copper conductor splices and taps, 6 AWG and larger. Tape uninsulated conductors and connector with electrical tape to 150 percent of insulation rating of conductor.
S. Use solderless pressure connectors with insulating covers for copper conductor splices and taps, 8 AWG and smaller.
T. Use insulated spring wire connectors with plastic caps for copper conductor splices and taps, 10 AWG and smaller.
U. Identify and color code wire and cable under provisions of Section 26 05 53 "Electrical Identification." Identify each conductor with its circuit number or other designation indicated.
V. The number of conductors in each conduit run shall be limited to the requirements as indicated on the Drawings and indicated in Article 310 of the National Electrical Code.

## 3.5 FIELD QUALITY CONTROL

A. Refer to Section 01 40 00 "Quality Requirements" for field inspection, testing, and adjusting.
B. Inspect and test in accordance with NETA ATS, except Section 4.
C. Perform inspections and tests listed in NETA ATS, Section 7.3.1.

END OF SECTION

# SECTION 26 05 19 - EQUIPMENT WIRING SYSTEMS

## PART 1 - GENERAL

1.1 SUMMARY

A. Section includes basic electrical connections to equipment specified under other Sections.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 26 05 00 "Basic Electrical Methods."

1.2 REFERENCES

A. NEMA WD 1 - General Purpose Wiring Devices.
B. NEMA WD 6 - Wiring Device Configurations.
C. ANSI/NFPA 70 - National Electrical Code.

1.3 SUBMITTALS

A. Submit under provisions of Section 01 33 00 "Submittal Procedures."
B. Product Data: Provide wiring device manufacturer's catalog information showing dimensions, configurations, and construction.
C. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, installation, and starting of product.

1.4 REGULATORY REQUIREMENTS

A. Conform to requirements of ANSI/NFPA 70.
B. Furnish products listed and classified by UL as suitable for purpose specified and shown.

1.5 COORDINATION

A. Coordinate Work under provisions of Section 01 30 00 "Submittal Procedures."
B. Obtain and review Shop Drawings, product data, and manufacturer's instructions for equipment furnished under other Sections.
C. Determine connection locations and requirements.
D. Sequence rough-in of electrical connections to coordinate with installation schedule for equipment.
E. Sequence electrical connections to coordinate with startup schedule for equipment.

## PART 2 - PRODUCTS

2.1 CORDS AND CAPS

A. Attachment Plug Construction: Conform to NEMA WD 1.
B. Configuration: NEMA WD 6; match receptacle configuration at outlet provided for equipment.

C. Cord Construction: ANSI/NFPA 70, multiconductor flexible cord with identified equipment grounding conductor, suitable for use in damp locations.
D. Size: Suitable for connected load of equipment, length of cord, and rating of branch circuit overcurrent protection.
E. Division 26 Contractor shall be responsible for providing matching cord/receptacle for all equipment not furnished with such equipment.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Verify conditions under provisions of Section 01 30 00 "Submittal Procedures."
B. Verify that equipment is ready for electrical connection, wiring, and energization.

### 3.2 ELECTRICAL CONNECTIONS

A. Make electrical connections in accordance with equipment manufacturer's instructions.
B. Make conduit connections to equipment using flexible conduit. Use liquidtight flexible conduit with watertight connectors in damp or wet locations.
C. Make wiring connections using wire and cable with insulation suitable for temperatures encountered in heat producing equipment.
D. Provide receptacle outlet where connection with attachment plug is indicated. Provide cord and cap where field-supplied attachment plug is indicated.
E. Provide suitable strain-relief clamps and fittings for cord connections at outlet boxes and equipment connection boxes.
F. Install disconnect switches, controllers, control stations, and control devices as indicated.
G. Modify equipment control wiring with terminal block jumpers as indicated.
H. Provide interconnecting conduit and wiring between devices and equipment where indicated.
I. Check and modify phase connections as required for proper motor rotation.
J. Provide power to equipment only after equipment supplier verifies acceptance to receive and approves.
K. Contractor shall coordinate with all equipment to verify exact power and control wiring as required to properly serve equipment.

END OF SECTION

# SECTION 26 05 26 - GROUNDING AND BONDING

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Rod electrodes.
   2. Mechanical connectors.
   3. Exothermic connections.
   4. Wire.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 01 40 00 "Quality Requirements" for requirements for references and standards.

1.2 REFERENCES

A. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems (International Electrical Testing Association).

B. NFPA 70 - National Electrical Code.

1.3 GROUNDING SYSTEM DESCRIPTION

A. Metal underground water pipe.

B. Metal frame of the building.

C. Rod electrodes.

1.4 PERFORMANCE REQUIREMENTS

A. Grounding System Maximum Resistance: 10 ohms.

1.5 SUBMITTALS FOR REVIEW

A. Refer to Section 01 33 00 "Submittal Procedures."

B. Product Data: Provide for grounding electrodes and connections.

1.6 SUBMITTALS FOR CLOSEOUT

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for procedures for Submittals.

B. Project Record Documents: Record actual locations of components and grounding electrodes.

C. Certificate of Compliance: Indicate approval of installation by authority having jurisdiction.

1.7 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' documented experience, and with service facilities within 100 miles of Project.

1.8 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.
B. Products: Listed and classified by UL as suitable for the purpose specified and indicated.

**PART 2 - PRODUCTS**

2.1 ROD ELECTRODES

A. Material: Copper.
B. Diameter: 3/4-inch.
C. Length: 10 feet.

2.2 MECHANICAL CONNECTORS

A. Description: In lieu of exothermic connections, high compression type as manufactured by Burndy using the 12 ton Hy-Ground series.

2.3 EXOTHERMIC CONNECTIONS

A. Manufacturers: Cadweld.

2.4 WIRE

A. Material: Stranded copper.
B. Grounding Electrode Conductor: Minimum size to meet NFPA 70 requirements or as indicated on the Drawings.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Refer to Section 01 30 00 "Administrative Requirements" for verification of existing conditions prior to beginning Work.
B. Verify that final backfill and compaction has been completed before driving rod electrodes.

3.2 INSTALLATION

A. Refer to Section 01 40 00 "Quality Requirements" for manufacturer's instructions.
B. Install rod electrodes. Install additional rod electrodes as required to achieve a resistance to ground of 10 ohms or less. Rods shall be installed with a minimum separation of 6 feet.
C. Provide bonding to meet Regulatory Requirements.

D. Bond together metal siding not attached to grounded structure; bond to ground.
E. Equipment Grounding Conductor: Provide separate, insulated conductor within each feeder and branch circuit raceway. Terminate each end on suitable lug, bus, or bushing.
F. Grounding Electrode System: The new grounding electrode system shall consist of the common bonding of building steel, underground steel water piping and supplemental ground rods, concrete re-enforcing bar, as detailed on the Drawings.
G. Provide proper bonding of the electrical system's grounded conductor (neutral) and the grounding electrode system sized in accordance with NEC Article 250. This bonding shall occur at all locations where there are separately derived systems.

## 3.3 FIELD QUALITY CONTROL

A. Refer to Section 01 40 00 "Quality Requirements" for field inspection, testing, and adjusting.
B. Inspect and test in accordance with NETA ATS, except Section 4.
C. Perform inspections and tests listed in NETA ATS, Section 7.13.

END OF SECTION

# SECTION 26 05 29 - SUPPORTING DEVICES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Supports for conduit and equipment.
   2. Anchors and fasteners.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. NECA - National Electrical Contractors Association.
B. NFPA 70 - National Electrical Code.

1.3 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.
B. Furnish products listed and classified by UL as suitable for purpose specified and shown.

## PART 2 - PRODUCTS

2.1 SUPPORTS

A. Provide materials, sizes, and types of anchors, fasteners and supports to carry the loads of equipment and conduit. Consider weight of wire in conduit when selecting products.

2.2 ANCHORS AND FASTENERS

A. Concrete Structural Elements: Use expansion anchors, powder actuated anchors, and preset inserts.
B. Steel Structural Elements: Use beam clamps, spring steel clips, and steel ramset fasteners.
C. Concrete Surfaces: Use self-drilling anchors and expansion anchors.
D. Sheet Metal: Use sheet metal screws.
E. Wood Elements: Use wood screws.
F. Roof Support/Jacks: Advanced supports products # SS1000A or approved equal.

2.3 MATERIALS AND FINISHES

A. Provide adequate corrosion resistance.

## PART 3 - EXECUTION

3.1 INSTALLATION

A. Install products in accordance with manufacturer's instructions.
B. Provide anchors, fasteners, and supports in accordance with NECA "Standard of Installation."
C. Do not fasten supports to pipes, ducts, mechanical equipment, and conduit.
D. Obtain permission from Architect/Engineer before drilling or cutting structural members.
E. Fabricate supports from structural steel as indicated on drawings. Rigidly weld members or use hexagon head bolts to present neat appearance with adequate strength and rigidity. Use lock washers under all nuts.
F. Install surface-mounted cabinets and panelboards with minimum of four anchors.
G. In wet and damp locations, use steel channel supports to stand cabinets and panelboards 1 inch off wall.
H. Install conduit supports a maximum spacing specified in the NEC.

END OF SECTION

# SECTION 26 05 33 - CONDUIT

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Metal conduit.
   2. Flexible metal conduit.
   3. Liquidtight flexible metal conduit.
   4. Electrical metallic tubing.
   5. Fittings and conduit bodies.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 26 05 33.16 "Boxes."
   3. Section 26 05 53 "Electrical Identification."

1.2 REFERENCES

A. ANSI C80.1 - Rigid Steel Conduit, Zinc Coated.
B. ANSI C80.3 - Electrical Metallic Tubing, Zinc Coated.
C. ANSI/NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies.
D. NECA "Standard of Installation."
E. NEMA TC 3 - PVC Fittings for Use with Rigid PVC Conduit and Tubing.
F. NFPA 70 - National Electrical Code.

1.3 DESIGN REQUIREMENTS

A. Conduit Size: NFPA 70.

1.4 SUBMITTALS

A. Submit under provisions of Section 01 33 00 "Submittal Procedures."
B. Product Data: Provide for metallic conduit, flexible metal conduit, liquidtight flexible metal conduit, nonmetallic conduit, fittings and conduit bodies.

1.5 PROJECT RECORD DOCUMENTS

A. Submit under provisions of Section 01 70 00 "Execution and Closeout Requirements."
B. Accurately record actual routing of conduits.

1.6 REGULATORY REQUIREMENTS

A. Conform to requirements of ANSI/NFPA 70.
B. Furnish products listed and classified by UL as suitable for purpose specified and shown.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, protect, and handle products to site under provisions of Section 01 60 00 "Product Requirements."
B. Accept conduit on site. Inspect for damage.
C. Protect conduit from corrosion and entrance of debris by storing above grade. Provide appropriate covering.
D. Protect PVC conduit from sunlight.

1.8 PROJECT CONDITIONS

A. Verify that field measurements are as shown on Drawings.
B. Verify routing and termination locations of conduit prior to rough-in.
C. Conduit routing is shown on Drawings in approximate locations unless dimensioned. Route as required to complete wiring system.

**PART 2 - PRODUCTS**

2.1 CONDUIT REQUIREMENTS

A. Minimum Size: 3/4-inch for all branch circuits located above ceiling. Contractor may use 1/2-inch conduit down the wall to receptacles and light switches.
B. Wet and Damp Locations above grade: Use rigid steel or liquid tight flexible conduit.
C. Dry Locations: Use electrical metallic tubing for concealed and exposed locations.
D. Below Slab: Non-metallic PVC conduit is acceptable within limitations specified.
E. Below Grade: Use only PVC coated rigid galvanized steel, wrapped rigid steel, or non-metallic PVC conduit within limitations specified.
F. MC Cable: Shall not be utilized on this Project.

2.2 METAL CONDUIT

A. Manufacturers:
   1. Allied.
   2. Wheatland.
   3. Substitutions: Under provisions of Section 01 60 00 "Product Requirements."
B. Rigid Steel Conduit: ANSI C80.1.
C. Fittings and Conduit Bodies: ANSI/NEMA FB 1; all steel fittings.

2.3 FLEXIBLE METAL CONDUIT

A. Manufacturers:
   1. Allied Tube.
   2. Electri-Flex.
   3. Greenfield.
   4. Substitutions: Under provisions of Section 01 60 00 "Product Requirements."
B. Description: Interlocked steel construction. Aluminum is not permitted.

C. Fittings: ANSI/NEMA FB 1 with fittings approved for steel flex.

D. Applications: Use for final connections to motorized equipment, connections to recessed lighting fixtures located in accessible ceilings, and connections to dry type transformers. Utilization of 3/8-inch in lieu of the minimum 1/2-inch is acceptable under the limitations of the National Electrical Code.

## 2.4 LIQUIDTIGHT FLEXIBLE METAL CONDUIT

A. Manufacturers:
   1. Electri-flex.
   2. Ultratite.
   3. Substitutions: Under provisions of Section 01 60 00 "Product Requirements."
B. Description: Interlocked steel construction with PVC jacket.
C. Fittings: ANSI/NEMA FB 1.
D. Applications: Use for final connections to motorized equipment in exterior locations and areas subjected to moisture (kitchen).

## 2.5 ELECTRICAL METALLIC TUBING (EMT)

A. Manufacturers:
   1. Allied.
   2. Substitutions: Under provisions of Section 01 60 00 "Product Requirements."
B. Description: ANSI C80.3; galvanized tubing.
C. Fittings and Conduit Bodies: ANSI/NEMA FB 1; all steel, compression or set screw.
D. Applications: Do not use below grade or in exterior locations. Use only in interior locations.

## 2.6 PVC COATED METAL CONDUIT

A. Manufacturers:
   1. Levy.
   2. Robroy Industries.
   3. Substitutions: Under provisions of Section 01 60 00 "Product Requirements."
B. Description: NEMA RN-1, rigid steel conduit with external PVC coating, 20 mil thick.
C. General: Protective layer may be factory applied or galvanized rigid steel conduit may be applied with two layers of corrosion resistant tape.
D. Fittings and Conduit Bodies: ANSI/NEMA FB 1; steel fittings with external PVC coatings to match conduit.

## 2.7 NON-METALLIC PVC CONDUIT

A. Manufacturers:
   1. Allied.
   2. Carlon.
   3. Substitutions: Under provisions of Section 01 60 00 "Product Requirements."
B. Description: NEMA TC2; Schedule 40 PVC. Flame retardant type resistant to bending and cracking.
C. Fittings and conduit bodies: NEMA TC3.
D. Vertical risers and ells installed below grade shall be rigid steel with wrapping.
E. Do not use above grade.

F. Joints made with PVC fittings shall be applied with solvent compound after thorough cleaning.
G. Refer to Part 3. Do not use PVC conduit for conduits passing vertically through the slab.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

A. Install conduit in accordance with NECA "Standard of Installation."
B. Install nonmetallic conduit in accordance with manufacturer's instructions.
C. Arrange supports to prevent misalignment during wiring installation.
D. Support conduit using coated steel or malleable iron straps, lay-in adjustable hangers, clevis hangers, and split hangers.
E. Group related conduits; support using conduit rack. Construct rack using steel channel.
F. Fasten conduit supports to building structure and surfaces under provisions of Section 26 05 29 "Supporting Devices."
G. Do not support conduit with wire or perforated pipe straps. Remove wire used for temporary supports.
H. Do not attach conduit to ceiling support wires.
I. Arrange conduit to maintain headroom and present neat appearance.
J. Route exposed conduit parallel and perpendicular to walls.
K. Route conduit installed above accessible ceilings parallel and perpendicular to walls.
L. Maintain adequate clearance between conduit and piping.
M. Maintain 12-inch clearance between conduit and surfaces with temperatures exceeding 104 degrees F.
N. Cut conduit square using saw or pipecutter; de-burr cut ends.
O. Bring conduit to shoulder of fittings; fasten securely.
P. Use conduit hubs or sealing locknuts to fasten conduit to sheet metal boxes in damp and wet locations and to cast boxes.
Q. Install no more than equivalent of three 90-degree bends between boxes. Use conduit bodies to make sharp changes in direction, as around beams. Use factory elbows for bends in metal conduit larger than 2-inch size.
R. Avoid moisture traps; provide junction box with drain fitting at low points in conduit system.
S. Provide suitable fittings to accommodate expansion and deflection where conduit crosses control and expansion joints.
T. Provide suitable pull string in each empty conduit except sleeves and nipples.
U. Use suitable caps to protect installed conduit against entrance of dirt and moisture.
V. Ground and bond conduit under provisions of Section 26 05 26 "Grounding and Bonding."
W. Identify conduit under provisions of Section 26 05 53 "Electrical Identification."
X. Ducts shall be cleaned with a flexible mandrel assembly.
Y. All conduits passing vertically through slabs or through earth on grade shall be PVC-coated, rigid steel. Rigid steel conduits shall be applied with protective coatings as indicated herein. All transitions from PVC to rigid steel shall occur below the slab.
Z. Underground branch circuit extensions to parking lot lighting fixtures and other branch circuits may be direct buried PVC conduit. Service entrance PVC conduit shall be concrete encased in accordance with the Drawings unless otherwise approved by Engineer.

AA. Minimum cover for underground conduits shall be 24 inches unless otherwise noted.

BB. All conduit shall be routed concealed as much as possible including conduit serving roof-mounted equipment. Roof penetrations for conduits shall adhere to the requirements and details as indicated on the Architectural Drawings.

3.2 INTERFACE WITH OTHER PRODUCTS

A. Install conduit to preserve fire resistance rating of partitions and other elements.
B. Route conduit through roof openings for piping and ductwork or through suitable roof jack with pitch pocket. Coordinate location with roofing installation.

END OF SECTION

# SECTION 26 05 33.16 - BOXES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Wall and ceiling outlet boxes.
   2. Pull and junction boxes.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 26 27 26 "Wiring Devices" for wall plates in finished areas.

1.2 REFERENCES

A. NECA - Standard of Installation.
B. NEMA FB 1 - Fittings and Supports for Conduit and Cable Assemblies.
C. NEMA OS 1 - Sheet-Steel Outlet Boxes, Device Boxes, Covers, and Box Supports.
D. NEMA 250 - Enclosures for Electrical Equipment (1,000 Volts Maximum).
E. NFPA 70 - National Electrical Code.

1.3 SUBMITTALS FOR CLOSEOUT

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for Submittals for Project closeout.
B. Record actual locations and mounting heights of outlet, pull, and junction boxes on Project record documents.

1.4 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.
B. Provide Products listed and classified by UL as suitable for the purpose specified and indicated.

## PART 2 - PRODUCTS

2.1 WALL AND CEILING OUTLET BOXES

A. Sheet Metal Outlet Boxes: NEMA OS 1, galvanized steel.
B. Luminaire and Equipment Supporting Boxes: Rated for weight of equipment supported; include 1/2-inch male fixture studs where required.
C. Cast Boxes: NEMA FB 1, Type FD, cast feralloy. Provide gasketed cover by box manufacturer.
D. Wall Plates for Finished Areas: As specified in Section 26 27 26 "Wiring Devices."

2.2 PULL AND JUNCTION BOXES

A. Sheet Metal Boxes: NEMA OS 1, galvanized steel.

B. Surface Mounted Cast Metal Box: NEMA 250, Type 4; flat-flanged, surface mounted junction box.
C. Material: Galvanized cast iron.
D. Cover: Furnish with ground flange, neoprene gasket, and stainless-steel cover screws.
E. Fiberglass boxes are allowed in landscaping areas. Equipment shall be pedestrian rated.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Verify locations of outlets in all locations areas prior to rough-in.

### 3.2 INSTALLATION

A. Install boxes in accordance with NECA "Standard of Installation."
B. Install in locations as shown on Drawings, and as required for splices, taps, wire pulling, equipment connections and compliance with regulatory requirements.
C. Set wall mounted boxes at elevations to accommodate mounting heights specified in Section for outlet device.
D. Electrical boxes are shown on Drawings in approximate locations unless dimensioned. Adjust box location up to 10 feet if required to accommodate intended purpose.
E. Orient boxes to accommodate wiring devices oriented as specified in Section 26 27 26 "Wiring Devices."
F. Maintain headroom and present neat mechanical appearance.
G. Install pull boxes and junction boxes above accessible ceilings and in unfinished areas only.
H. Inaccessible Ceiling Areas: Install outlet and junction boxes no more than 6 inches from ceiling access panel or from removable recessed luminaire.
I. Install boxes to preserve fire resistance rating of partitions and other elements, using materials and methods specified in Section 07 84 13 "Penetration Firestopping."
J. Coordinate mounting heights and locations of outlets mounted above counters, benches, and backsplashes with Architectural Drawings and other trades.
K. Locate outlet boxes to allow luminaires positioned as shown on reflected ceiling plan.
L. Align adjacent wall mounted outlet boxes for switches, thermostats, and similar devices.
M. Use flush mounting outlet box in finished areas.
N. Locate flush mounting box in masonry wall to require cutting of masonry unit corner only. Coordinate masonry cutting to achieve neat opening.
O. Do not install flush mounting box back-to-back in walls; provide minimum 6-inch separation. Provide minimum 24-inch separation in acoustic rated walls.
P. Secure flush mounting box to interior wall and partition studs. Accurately position to allow for surface finish thickness.
Q. Use stamped steel bridges to fasten flush mounting outlet box between studs.
R. Install flush mounting box without damaging wall insulation or reducing its effectiveness.
S. Use adjustable steel channel fasteners for hung ceiling outlet box.
T. Do not fasten boxes to ceiling support wires.

U. Support boxes independently of conduit.
V. Use gang box where more than one device is mounted together. Do not use sectional box.
W. Use gang box with plaster ring for single device outlets.

X. Use cast outlet box in exterior locations exposed to the weather and wet locations and at all locations serving kitchen equipment.
Y. Large Pull Boxes: Use hinged enclosure in interior dry locations, surface-mounted cast metal box in other locations.
Z. Coordinate with other trades for box rough-in, such that control devices are grouped (i.e., thermostats, wall switches, volume controls, etc.).

## 3.3 INTERFACE WITH OTHER PRODUCTS

A. Coordinate installation of outlet box for equipment connected under Section 26 05 19 "Equipment Wiring Systems."

## 3.4 ADJUSTING

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for adjusting installed Work.
B. Adjust flush-mounting outlets to make front flush with finished wall material.
C. Install knockout closures in unused box openings.

## 3.5 CLEANING

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for cleaning installed Work.
B. Clean interior of boxes to remove dust, debris, and other material.
C. Clean exposed surfaces and restore finish.

## 3.6 REPAIR

A. Repair any areas or surfaces damaged during conduit installation.
B. Paint (resurface) to original condition.

END OF SECTION

# SECTION 26 05 53 - ELECTRICAL IDENTIFICATION

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Nameplates and labels.
   2. Wire, conduit, and box markers.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. ANSI/NFPA 70 - National Electrical Code.

## PART 2 - PRODUCTS

2.1 NAMEPLATES AND LABELS

A. Nameplates and Labels: Engraved three-layer laminated plastic, white letters on black background.
B. Locations:
   1. Each electrical distribution and control equipment enclosure.
   2. Communication cabinets and computer cabinets.
   3. Field disconnects, start stop stations, control panels.
C. Letter Size:
   1. Use 1/4-inch letters for identifying individual equipment and loads.
   2. Use 1/4-inch letters for identifying grouped equipment and loads.
   3. Use 3/8-inch letters for identifying main disconnect equipment.
   4. Use 1/4-inch letters for identifying receptacle and light switches.

2.2 WIRE, CONDUIT, AND BOX MARKERS

A. Description: Brady B-321 Heat-Shrink Polyolefin markers. Typed label to identify each termination end point of the conductor. DC conductors shall identify polarity.
B. Locations: Each conductor at wireway, pull boxes, outlet and junction boxes, and each load connection. All conduit penetrations identifying the location of each end.
C. Legend:
   1. Power and Lighting Circuits: Branch circuit or feeder number indicated on Drawings.
D. Boxes:
   1. Label each junction box in accessible locations to indicate the type of system (i.e.; security; power circuit - 1, 3, 5; etc.).
   2. Provide label in each light switch and receptacle back box.

E. Panelboards:
1. Provide phenolic label with maximum available fault current at main switchboard. Utilize number as indicated in panel schedule.
2. Provide warning labels with arc-flash hazard warning for all electrical equipment as indicated in Article 110.16 of NEC.

## PART 3 - EXECUTION

### 3.1 PREPARATION

A. Degrease and clean surfaces to receive nameplates and labels.

### 3.2 APPLICATION

A. Install nameplate and label parallel to equipment lines.
B. Secure nameplate to equipment front using screws or rivets.
C. Identify underground conduits using underground warning tape. Install one tape per trench at 12 inches below finished grade. Identify all conduit at exposed locations into all boxes, cabinets, etc. (see Specification Section 26 05 00 "Basic Electrical Methods").
D. Identify all conductors at every termination indicating endpoints of termination and tag identification as required.

| 120-208 Volts | Phase | 277/480 Volts |
|---|---|---|
| Black | A | Brown |
| Red | B | Orange |
| Blue | C | Yellow |
| White | Neutral | Gray |
| Green | Ground | Green |

E. Conductor phase and voltage identification shall be made by color-coded insulation for all conductors smaller than No. 6 AWG. For conductors No. 6 AWG and larger, identification shall be made by color-coded insulation, or conductors with black insulation may be furnished and identified by colored electrical tape. Conductor identification shall be provided within each enclosure where a tap, splice, or termination is made.

END OF SECTION

# SECTION 26 18 39 - ENCLOSED MOTOR CONTROLLERS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Manual controllers.
   2. Automatic controllers.
   3. Disconnects.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCES

A. NFPA 70 - National Electrical Code.
B. UL 1 98C - High-Interrupting Capacity Fuses; Current Limiting Type.
C. UL 1 98E - Class R Fuses.
D. NECA "Standard of Installation," published by National Electrical Contractors Association.
E. NEMA ICS 2 - Industrial Control Devices, Controllers, and Assemblies.
F. NEMA ICS 6 - Enclosures for Industrial Controls and Systems.
G. NEMA KS 1 - Enclosed Switches.

### 1.3 SUBMITTALS

A. Submit under provisions of Section 01 33 00 "Submittal Procedures."
B. Product Data: Provide catalog sheets showing voltage, controller size, ratings and size of switching and overcurrent protective devices, short circuit ratings, dimensions, and enclosure details.
C. Test Reports: Indicate field test and inspection procedures and test results.
D. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, installation, and starting of product.

### 1.4 QUALITY ASSURANCE

A. Perform Work in accordance with NECA Standard of Installation.
B. Maintain one copy of each document on-site.

### 1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' documented experience.

1.6 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.
B. Furnish products listed and classified by UL as suitable for purpose specified and indicated.

**PART 2 - PRODUCTS**

2.1 MANUAL CONTROLLERS

A. Manual Motor Controller: NEMA ICS 2, AC general-purpose Class A manually operated, full-voltage controller with overload element, NO auxiliary contact, and toggle operator.
B. Fractional Horsepower Manual Controller: NEMA ICS 2, AC general-purpose Class A manually operated, full-voltage controller for fractional horsepower induction motors, with thermal Overload unit, and toggle operator.
C. Enclosure: NEMA ICS 6; Type 1.

2.2 AUTOMATIC CONTROLLERS

A. Magnetic Motor Controllers: NEMA ICS 2, AC general-purpose Class A magnetic controller for induction motors rated in horsepower.
B. Coil Operating Voltage: 120 volts, 60 Hertz.
C. Overload Relay: NEMA ICS; electronic type; with phase loss and unbalance protection.
D. Enclosure: NEMA ICS 6, Type 1.

2.3 PRODUCT OPTIONS AND FEATURES

A. Auxiliary Contacts: NEMA ICS 2, 2 each field convertible contacts in addition to seal-in contact.
B. Cover Mounted Pilot Devices: NEMA ICS 2, heavy duty type.
C. Pushbuttons: Recessed type.
D. Indicating Lights: LED type.
E. Selector Switches: Rotary type.
F. Relays: NEMA ICS 2.
G. Control Power Transformers: 120 volt secondary. Provide fused primary and secondary, and bond unfused leg of secondary to enclosure.

2.4 DISCONNECTS

A. Combination Controllers: Combine motor controllers with fusible switch disconnect in common enclosure.
B. Fusible Switch Assemblies: NEMA KS 1, enclosed knife switch with externally operable handle. Fuse clips: Designed to accommodate Class R fuses.

2.5 FUSES

A. Description: Dual element, current limiting, time delay, one-time fuse, 250V volt, UL 198E, Class RK 5.
B. Interrupting Rating: 200,000 rms amperes.

## PART 3 - EXECUTION

3.1 INSTALLATION

A. Install enclosed controllers where indicated, in accordance with manufacturer's instructions. Provide a motor controller for all equipment not furnished as integral with equipment. Coordinate actual motor loads with overload protection.
B. Install enclosed controllers plumb. Provide supports in accordance with Section 26 05 29 "Supporting Devices."
C. Height: 5 feet to operating handle.
D. Install fuses in fusible switches.
E. Select and install overload heater elements in motor controllers to match installed motor characteristics.
F. Provide engraved plastic nameplates under the provisions of Section 26 05 53 "Electrical Identification."
G. Provide neatly typed label inside each motor controller door identifying motor served, nameplate horsepower, full load amperes, code letter, service factor, and voltage/phase rating.

3.2 FIELD QUALITY CONTROL

A. Field inspection and testing will be performed under provisions of other Sections.
B. Inspect and test each enclosed controller to NEMA ICS 2.

END OF SECTION

# SECTION 26 24 16 - PANELBOARDS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Distribution and branch circuit panelboards.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 26 05 29 "Supporting Devices."
   3. Section 26 05 53 "Electrical Identification" for engraved nameplates.

### 1.2 REFERENCES

A. NECA (National Electrical Contractors Association) "Standard of Installation."
B. NEMA AB 1 - Molded Case Circuit Breakers.
C. NEMA ICS 2 - Industrial Control Devices, Controllers, and Assemblies.
D. NEMA KS 1 - Enclosed Switches.
E. NEMA PB 1 - Panelboards.
F. NEMA PB-2 - Switchboards.
G. NEMA PB 1.1 - Instructions for Safe Installation, Operation and Maintenance of Panelboards Rated 600 Volts or Less.
H. NFPA 70 - National Electrical Code.

### 1.3 SUBMITTALS

A. Shop Drawings: Indicate outline and support point dimensions, voltage, main bus ampacity, integrated short circuit ampere rating, circuit breaker, fusible switch arrangement, and sizes.
B. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, installation, and starting of product.
C. Switchboard and panelboard manufacturer shall provide short circuit and arc fault calculations per NEC requirements. Equipment shall be rated per calculations.

### 1.4 PROJECT RECORD DOCUMENTS

A. Submit under provisions of General Conditions. Record actual locations of products; indicate actual branch circuit arrangement.

### 1.5 OPERATION AND MAINTENANCE DATA

A. Submit under provisions of General Conditions. Maintenance Data: Include spare parts data listing; and recommended maintenance procedures and intervals.

### 1.6 QUALITY ASSURANCE

A. Perform Work in accordance with NECA Standard of Installation.

1.7 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 5 years' experience.

1.8 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70. Furnish products listed and classified by UL as suitable for purpose specified and indicated.

1.9 FIELD MEASUREMENTS

A. Verify that field measurements are as indicated.

1.10 MAINTENANCE MATERIALS

A. Provide maintenance materials under provisions of General Conditions. Provide two of each panelboard key if required.

**PART 2 - PRODUCTS**

2.1 PANELBOARDS

A. Manufacturers:
   1. Eaton.
   2. G.E.
   3. Siemens.
   4. Square-D.
B. Description: NEMA PB-1, circuit breaker type.
C. Panelboard Bus: Copper with ratings as indicated. Provide a copper ground bus in each panelboard.
D. Minimum integrated short circuit rating: Fully rated devices with minimum levels as indicated. Series rated systems will not be allowed. Minimum calculated values are labeled on each panelboard and are indicated as "AIC."
E. Molded Case Circuit Breakers: NEMA AB 1, bolt-on, circuit breakers with integral thermal and instantaneous magnetic trip in each pole. Provide circuit breakers UL listed as type HACR for air-conditioning equipment loads and type SWD for switching applications.
F. Enclosure: NEMA PB-1, Type 1.
G. Cabinet Front: Surface or recessed type as indicated on the Drawings, fastened with concealed trim clamps, hinged door with flush lock, metal directory frame, and finished in manufacturer’s standard gray enamel.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

A. Install panelboards in accordance with NEMA PB 1.1. Install panelboards plumb. Provide supports in accordance with drawings and Section 26 05 29 "Supporting Devices." Height: 6-foot maximum to top of panelboard. Provide filler plates for unused spaces in panelboards. Provide typed circuit directory for each branch circuit panelboard. Revise directory to reflect circuiting changes required to balance phase loads. Spare slots shall be labeled as such in erasable pencil on directory. Provide engraved plastic nameplates under the provisions of Section 26 05 53 "Electrical Identification."

B. Provide two empty 1-inch conduits from each recessed panelboard to an accessible location above and label as "spare."

C. Ground each panelboard in accordance with Section 26 05 26 "Grounding and Bonding."

D. Prove a 4-inch concrete housekeeping pad for switchboard.

### 3.2 FIELD QUALITY CONTROL

A. Field inspection and test for grounds on each circuit after installation is completed. Measure steady state load currents at each panelboard feeder; rearrange circuits in the panelboard to balance the phase loads to within 20 percent of each other. Maintain proper phasing for multi-wire branch circuits.

B. Visual and Mechanical Inspection: Inspect for physical damage, proper alignment, anchorage, and grounding. Check proper installation and tightness of connections for circuit breakers, fusible switches, and fuses.

END OF SECTION

# SECTION 26 27 26 - WIRING DEVICES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Wall switches.
   2. Receptacles.
   3. Wall plates.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 26 05 33.16 "Boxes."

1.2 REFERENCES

A. NECA - Standard of Installation.
B. NEMA WD 1 - General Requirements for Wiring Devices.
C. NEMA WD 6 - Wiring Device - Dimensional Requirements.
D. NFPA 70 - National Electrical Code.

1.3 SUBMITTALS FOR REVIEW

A. Refer to Section 01 33 00 "Submittal Procedures."
B. Product Data: Provide manufacturer's catalog information showing dimensions, colors, and configurations.
C. Manufacturers with similar catalog numbers will not be considered as a basis for an equivalent product.

1.4 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' documented experience.

1.5 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.
B. Provide products listed and classified by UL as suitable for the purpose specified and indicated.

## PART 2 - PRODUCTS

2.1 WALL SWITCHES

A. Manufacturers:
   1. Hubbell PRO 1221-W.
   2. Substitutions: Refer to Section 01 60 00 "Product Requirements."
B. Description: NEMA WD 1, 20 amp, Heavy-Duty, AC only general-use snap switch.

C. Body and Handle: Nylon white handle.
D. Utilize equivalent series of manufacturer's numbers above for three-way, four-way, and two-pole applications.
E. Refer to drawings for Lighting Control Sequence Matrix for additional lighting control devices and requirements. Lighting Controls shall be equal to Acuity Brands, nLight system. All devices shall be white.

2.2 RECEPTACLES

A. Manufacturers:
1. Hubbell PRO 5352-W.
2. Substitutions: Refer to Section 01 60 00 "Product Requirements." Equivalent.
B. Description: NEMA WD 1, Heavy-duty, general-use receptacle, with triple wipe contacts and grounding contacts integral with backstrap (no rivets).
C. Device Body: White plastic.
D. Configuration: NEMA WD 6, type as specified and indicated.
E. Convenience Receptacle: Type 5-20.
F. GFCI Receptacle: Convenience receptacle with integral ground fault circuit interrupter to meet regulatory requirements. Hubbell GF5352-W or equivalent.

2.3 WALL PLATES

A. Decorative Cover Plate: Stainless steel.
B. Weatherproof Cover Plate: Gasketed cast metal with gasketed device cover on exterior devices.
C. Surface Mounted Plates: Galvanized steel plates.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Refer to Section 01 30 00 "Administrative Requirements" for verification of existing conditions prior to beginning Work.
B. Verify that outlet boxes are installed at proper height.
C. Verify that wall openings are neatly cut and will be completely covered by wall plates.
D. Verify that branch circuit wiring installation is completed, tested, and ready for connection to wiring devices.
E. Verify installation location of all boxes to be installed in millwork with Architect/Engineer.

3.2 PREPARATION

A. Provide extension rings to bring outlet boxes flush with finished surface.
B. Clean debris from outlet boxes.

3.3 INSTALLATION

A. Install in accordance with NECA "Standard of Installation."
B. Install devices plumb and level.
C. Install switches with OFF position down.
D. Do not share neutral conductor on load side of dimmers.

E. Install receptacles with grounding pole located on the bottom as required by Owner.
F. Connect wiring device grounding terminal to branch circuit equipment grounding conductor.
G. Install decorative plates on switch, receptacle, and blank outlets in finished areas.
H. Connect wiring devices by wrapping conductor around screw terminal.
I. Use jumbo size plates for outlets installed in masonry walls.
J. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.
K. Install blank cover plate to match other wall plates on all unused boxes.

## 3.4 INTERFACE WITH OTHER PRODUCTS

A. Coordinate locations of outlet boxes provided under Section 26 05 33.16 "Boxes" to obtain mounting heights specified and indicated on Drawings.
B. Install all wall switches, thermostats, and fire alarm pull stations at 48 inches above finished floor.
C. Install convenience receptacle 18 inches above finished floor.
D. Install convenience receptacle 6 inches above backsplash of counter unless otherwise directed by Architect/Engineer.
E. Install telephone jack 18 inches above finished floor.
F. Install telephone for jack wall telephone to position top of telephone at 48 inches above finished floor.

## 3.5 FIELD QUALITY CONTROL

A. Refer to Section 01 40 00 "Quality Requirements" for field inspection, testing, adjusting, and balancing.
B. Inspect each wiring device for defects.
C. Operate each wall switch with circuit energized and verify proper operation.
D. Verify that each receptacle device is energized.
E. Test each receptacle device for proper polarity.
F. Test each GFCI receptacle device for proper operation.

## 3.6 ADJUSTING

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for adjusting installed work.
B. Adjust devices and wall plates to be flush and level.

## 3.7 CLEANING

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for cleaning installed Work.
B. Clean exposed surfaces to remove splatters and restore finish.

END OF SECTION

# SECTION 26 28 16.16 - ENCLOSED SWITCHES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Fusible switches.
   2. Non-fusible switches.
   3. Fuses.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. NEMA KS 1 - Enclosed Switches.
B. NFPA 70 - National Electrical Code.
C. UL 198C - High-Interrupting Capacity Fuses; Current Limiting Type.
D. UL 198E - Class R Fuses.
E. NEMA AB 1 - Molded Case Circuit Breakers.
F. NECA - Standard of Installation.

1.3 SUBMITTALS

A. Submit under provisions of Section 01 33 00 "Submittal Procedures."
B. Product Data: Provide switch ratings and enclosure dimensions.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with NECA Standard of Installation.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' documented experience.

1.6 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.
B. Furnish products listed and classified by UL as suitable for purpose specified and shown.

## PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Eaton.
B. General Electric.
C. Siemens.
D. Square D.

2.2 ENCLOSED SWITCHES

A. Fusible or Non-fusible as indicated.
B. Switch Assemblies: NEMA KS 1, Type HD load interrupter enclosed knife switch with externally operable handle interlocked to prevent opening front cover with switch in ON position. Handle lockable in OFF position.
C. Fuse Clips: Designed to accommodate NEMA FU1, class R fuses.
D. Enclosures: NEMA KS 1.
E. Interior Dry Locations: Type 1.
F. Exterior Locations: Type 3R or 4.
G. NEMA ratings of enclosures as specified on Drawings take precedence over location Specification.
H. Current rating of switch to be equal to or greater than that of the circuit it is interrupting.

2.3 FUSES

A. Manufacturers:
   1. Bussman.
   2. Gould Shawmut.
   3. Littlefuse.
B. Dimensions and Performance: NEMA FU 1, Class as specified or indicated.
C. Voltage: Provide fuses with suitable voltage ratings for phase to phase voltages.
D. Service Entrance: Class L, Bussman Low-peak or equivalent.
E. General Purpose Loads: Class RK1, Bussman Low-peak or equivalent.
F. Motor Loads: Class RK5, Bussman Fusetron or equivalent.

**PART 3 - EXECUTION**

3.1 INSTALLATION

A. Install in accordance with NECA Standard of Installation.
B. Install fuses in all fusible disconnects.
C. Apply adhesive tag on the inside door of all disconnects indicating the NEMA class fuse and size installed.
D. Provide a disconnect switch for all equipment where indicated or required by the National Electrical Code. Coordinate with other disciplines to determine where disconnects are furnished with equipment.

END OF SECTION

# SECTION 26 51 00 - INTERIOR LIGHTING

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Luminaires.
   2. Exit signs.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. NEMA WD 6 - Wiring Devices-Dimensional Requirements.
B. NFPA 70 - National Electrical Code.
C. NFPA 101 - Life Safety Code.

1.3 SUBMITTALS

A. Refer to Section 01 33 00 "Submittal Procedures" for Submittals.
B. Shop Drawings: Indicate dimensions and components for each luminaire that is not a standard product of the manufacturer.
C. Product Data: Provide dimensions, ratings, and performance data.

1.4 SUBSTITUTIONS

A. Refer to Section 26 05 00 "Basic Electrical Methods" for requirements.

1.5 CLOSEOUT SUBMITTALS

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for Submittals for Project closeout.
B. Operation and Maintenance Data: Submit manufacturer's operation and maintenance instructions for each product.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years' documented experience.

1.7 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.
B. Conform to requirements of NFPA 101.
C. Products: Listed and classified by UL as suitable for the purpose specified and indicated.

## PART 2 - PRODUCTS

2.1 LUMINAIRES

A. Furnish products as scheduled. Refer to Section 01 60 00 "Product Requirements" for substitutions and product options.

2.2 EXIT SIGNS

A. Furnish products as scheduled.

## PART 3 - EXECUTION

3.1 INSTALLATION

A. Install suspended luminaires using pendants supported from swivel hangers. Provide pendant length required to suspend luminaire at indicated height.
B. Locate recessed ceiling luminaires as indicated on reflected ceiling plan.
C. Install surface mounted luminaires and exit signs plumb and adjust to align with building lines and with each other. Secure to prevent movement.
D. Exposed Grid Ceilings: Support surface mounted luminaires on grid ceiling directly from building structure.
E. Install recessed luminaires to permit removal from below.
F. Install recessed luminaires using accessories and firestopping materials to meet regulatory requirements for fire rating in locations where fire rated ceilings are present.
G. Install clips to secure recessed grid-supported luminaires in place.
H. Install wall mounted luminaires, emergency lighting units and exit signs at height as indicated on the Drawings or as scheduled.
I. Install accessories furnished with each luminaire.
J. Make wiring connections to branch circuit using building wire with insulation suitable for temperature conditions within luminaire.
K. Bond products and metal accessories to branch circuit equipment grounding conductor.
L. Install specified lamps in each emergency lighting unit, exit sign, and luminaire.

3.2 FIELD QUALITY CONTROL

A. Refer to Section 01 40 00 "Quality Requirements" for field inspection, testing, and adjusting.
B. Operate each luminaire after installation and connection. Inspect for proper connection and operation.

3.3 ADJUSTING

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for adjusting installed work.
B. Aim and adjust luminaires as directed.
C. Position exit sign directional arrows as indicated.
D. Contractor shall readjust occupancy sensor (time and sensitivity) at or before the end of 1-year warranty period.

3.4 CLEANING

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for cleaning installed Work.
B. Clean electrical parts to remove conductive and deleterious materials.
C. Remove dirt and debris from enclosures.
D. Clean photometric control surfaces as recommended by manufacturer.
E. Clean finishes and touch up damage.

3.5 DEMONSTRATION AND INSTRUCTIONS

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for demonstrating installed Work.

3.6 PROTECTION OF FINISHED WORK

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for protecting installed Work.
B. Replace luminaires that have failed prior to Substantial Completion.

END OF SECTION

# SECTION 27 13 43 - TELEPHONE COMMUNICATIONS CABLING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Fiber optic cable.
   2. Fiber optic patch panel.
   3. Optical fiber adapters.
   4. Optical fiber connectors.
   5. Jacks and patch panels.
   6. Equipment racks.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

### 1.2 REFERENCES

A. Design, installation, and testing of all passive components shall be in compliance with the following referenced documents using latest edition, including any errata or additions:
   1. TIA J-STD-607 (2002a) - Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications.
   2. TIA-526-14 (2010b) - OFSTP-14A Optical Power Loss Measurements of Installed Multimode Fiber Cable Plant.
   3. TIA-568-2 (2009c; Errata 2010) - Commercial Building Telecommunications Cabling Standard - Part 2: Balanced Twisted Pair Cable Components.
   4. TIA-568-C.1 (2009) - Commercial Building Telecommunications Cabling Standard.
   5. TIA-568-C.3 (2008; Corrections 2008) - Optical Fiber Cabling Components Standard.
   6. TIA-569 (2004b; Add 1 2009) - Commercial Building Standard for Telecommunications Pathways and Spaces.

### 1.3 SYSTEM DESCRIPTION AND DEFINITIONS

A. The communication system shall include Category 6 patch panels, Category 6 back bone cables, telephone and data outlets, equipment racks, and connecting hardware. Connecting hardware shall be rated for operation under ambient conditions of 32 degrees Fahrenheit to 140 degrees Fahrenheit.

B. All Work under this Section shall be performed by and all equipment shall be furnished and installed by a qualified telecommunications contractor, hereafter referred to as Contractor. Contractor shall have minimum of 3 years' experience in the application, installation, and testing of the specified systems and equipment.

C. The equipment and hardware provided under this Contract will be from manufacturers that have a minimum of 3 years' experience in producing the types of systems and equipment specified.

D. Cable Requirements and Definitions:
   1. Horizontal Distribution Wiring - Category 6 UTP:

a. Intra-building cable that cross-connects the workstation data jack to the designated equipment closet. Horizontal wiring shall be four pair, 100-ohm plenum grade Unshielded Twisted Pair (UTP) cable meeting, at a minimum, Category 6 standards. RJ-45 modular connectors will be wired to meet EIA/TIA-568B standards and color code tables. Each connection shall include all eight wires of the four pair cable. All termination patch panels will comply with Category 6 standards. Additionally, all equipment selected will meet the manufacturer's end-to-end solution requirements for warranty. All horizontal wiring shall be secured and/or protected to safeguard against damage. All cables that drop below ceiling level will be concealed conduit.

E. Patch Panels: RJ-45 patch panels shall support all of the RJ-45 connections for a designated LAN zone. Provide fiber optic patch panel. Each port shall be labeled designating the port's destination outlet and port number. All conductors of all cables shall be terminated at both ends. Provide 48 port patch panels and quantity of patch panels required to support communciation cables required plus 2010 spare parts.

F. Data Outlets: Provide Category 6 RJ-45 Outlet as indicated on Drawings.

1.4 SUBMITTALS

A. Product Data: Submit for Category 6 outlet, Category 6 cable, Category 6 patch panel.

B. Test Reports: Reports shall show the field test performed to verify compliance with the specified performance criteria. Test reports shall include record of the physical parameters verified during testing.

## PART 2 - PRODUCTS

2.1 HORIZONTAL DISTRIBUTION WIRING SYSTEM REQUIREMENTS

A. The horizontal cable for communication outlet wiring is defined as multi-conductor, thermoplastic-insulated, copper cable, 24 AWG air core, with four unshielded twisted pairs rated to a performance criteria of Category 6.

B. Cable protection will be of the highest concern. The cable sheath shall be protected from sharp edges. Where cables pass over a sharp edge, a bushing or grommet shall be inserted to protect the cable.

C. To reduce EMI induced into the cabling from fluorescent lights, cable sheath shall be installed in a hanging pathway in the area above the drop ceilings to maintain proper clearance of 5 inches from fluorescent lights.

D. Testing after installation and termination will be required to ensure a rating to Category 6 performance.

E. The cable's outer sheath shall be "blue" in color for data.

F. Horizontal cabling shall be installed in a star topology. Each work area outlet must be cabled directly to a horizontal cross connect in the appropriate equipment closet.

G. Splices shall not be permitted for twisted-pair horizontal cabling.

H. Bridged taps (multiple appearances of the same cable pairs at several distribution points) shall not be permitted in the horizontal cable.

I. In all cases where the overall cable length allows, an additional 5 feet of slack shall be allowed for in the equipment closet.

J. In all cases where the overall cable length allows, an additional 12 inches of cable slack shall be allowed for at the outlet location.

K. In no case shall the slack allowances cause the overall length of the cable to exceed the limits as described in this Section.

L. Horizontal Cable Lengths: The maximum horizontal cable length from the cross connect panel to the workstation outlet shall not exceed 295 feet. An additional 33-foot allowance has been made for the combined length of patch cables and cables used to connect equipment in the work area and equipment rack.

M. Category 6 High Speed LAN Data Specifications:
   1. Electrical Specifications: Impedance 100 ohm plus or minus 15 percent.
   2. See testing specification for Category 6 performance - Execution for Attenuation and NEXT requirements.
   3. Mutual Capacitance: 17 pico Farad per foot maximum.

## 2.2 FIBER OPTIC CABLE

A. Provide in accordance with ICEA S-83-596, TIA/EI-568-C.3, UL and NFPA 70. Cable shall be imprinted with fiber count, fiber type, and aggregate length at regular intervals not to exceed 40 inches.

B. EIA TIA/EIA-492AAAA-A, multimode, 50/125-µm diameter, tight buffered fiber optic cable. Provide a 12 strand multimode fiber optic cable. Provide nonconductive optical fiber general purpose cable (OFN or OFNG), nonconductive optical fiber plenum cable (OFNP), and nonconductive optical fiber riser cable (OFNR) rated cable in accordance with NFPA 70 and UL 910. Type OFNP or OFNR may be substituted for type OFN or OFNG and type OFNP may be substituted for type OFNR in accordance with NFPA 70. The cable cordage jacket, fiber, unit, and group color shall be in accordance with EIA TIA/EIA-598.

C. Provide fiber optic cable from the main Demark room to the IT room serving the building.

## 2.3 FIBER OPTIC PATCH PANEL

A. Provide panel for maintenance and cross-connecting of optical fiber cables. Panel shall be constructed of 16 gauge steel minimum and shall be cabinet mounted and compatible with an EIA-310-D 19-inch equipment rack. Each panel shall be compatible with Type LC connectors. Provide dust cover for unused adapters. The rear of each panel shall have a cable management tray a minimum of 8 inches deep with removable cover, incoming cable strain-relief, and routing guides. Panels shall have each adapter factory numbered and be equipped with laminated plastic nameplates above each adapter. Provide fiber optic patch panel in each LAN hub enclosure.

## 2.4 OPTICAL FIBER ADAPTERS

A. Provide optical fiber adapters suitable for LC connectors. Provide dust cover for adapters. Optical fiber adapters shall comply with EIA TIA-455-21-A for 500 mating cycles.

## 2.5 OPTICAL FIBER CONNECTORS

A. Provide in accordance with EIA TIA-455-21-A. Optical fiber connectors shall be type LC in accordance with applicable EIA/TIA standards. The connectors shall provide a maximum attenuation of 0.3 dB at 850, 1,300, 1,310 and 1,550 µm with less than a 0.2 dB change after 500 mating cycles.

2.6 JACKS AND PATCH PANELS

A. Category 6 rating shall be applied to all connecting hardware appropriate for use with UTP cables specified in the EIA/TIA-568-C3. Components used shall be characterized up to a minimum 6 certification and typically intended for emerging technologies and applications. Provide a minimum of 10 percent spare ports in patch panel. Provide separate patch panels for telephone and data wiring.

2.7 EQUIPMENT RACKS

A. Provide 19-inch, 7-foot tall, 4-post. Refer to Drawings for additional rack information.
B. Provide number of racks to support equipment required including spaces as indicated.
C. Provide Cable Management System for each rack as manufactured by Panduit.
D. Provide rack with all associated hardware.

2.8 SUPPORT PRODUCTS

A. All data/telephone cabling shall be in conduit or cable tray.

**PART 3 - EXECUTION**

3.1 GENERAL

A. Contractor shall provide Category 6 cable, Category 6 patch panels, fiber optic patch panel, fiber optic cable, Category 6 outlets, equipment rack, and mounting hardware for LAN HUB. All communication cables shall be terminated and tested.

3.2 CABLE DISTRIBUTION

A. Contractor shall wire the building as indicated on the Contract Drawings in accordance with standards. The building shall be wired using a universal wire plan that must accommodate the cables described in this Specification. The wiring plan is designed to provide adequate pairs to support the campus LAN system's high-speed data connections.
   1. Two four-pair Category 6, 100-ohm plenum rated UTP cables shall be provided for each data port. Cable shall be rated CMP.
   2. Category 6, RJ-45 modular connections shall be wired to meet TIA/EIA 568-C.1 and TIA/EIA 568-C.2 pin, pair and color designation.
   3. Each connection shall include all eight conductors of each of the four pair cable.
   4. Placement relative to nearby noise sources, such as electric power wiring, radio frequency (RF) sources, large motors and generators, induction heaters, fluorescent light ballast, etc., shall be avoided. If necessary, place exposed cables not closer than 4 feet from large motors or transformers, 1-foot from conduit and cables used for electrical power distribution and 5 inches from fluorescent lighting.
   5. Unless otherwise instructed by this Specification installation shall be in compliance with EIA/TIA-568-C1, TIA-568-2, TIA-569, NFPA 70, UL Standards, Telecommunications Cabling Standard, EIA/TIA-569 Commercial Building Standard for Telecommunications Pathways and Spaces, and ANSI/NFPA 70 National Electric Code. Installation shall also meet any additional manufacturer's requirements to fulfill warranty Specifications.

6. Provide a minimum of 5 feet of cable slack in the equipment cabinets and 12 inches at the outlet for each cable run to accommodate for future cabling system changes.

## 3.3 USER WORK AREA

A. Distribution of drop locations will be as indicated on the Contract Documents. Provide the following at each outlet location: Minimum telephone/data: Two Category 6 jack (RJ-45) at each outlet (with two blue cables). Provide number of drops per outlet as indicated on Drawings.
   1. 1,000 Mbite/Sec, Fast Ehternet, Lockable.
   2. Labeling:
      a. All data outlets, patch panel ports, and both ends of each cable shall be clearly and neatly labeled. Two cable identification schemes will be used, one for the end of the cable in the work area, and one for the end of the cable at the patch panel. The labeling schemes shall be as follows:
   3. Work Area Scheme: The first digit of the I.D. number will use a numeric character, designating the LAN zone in which the jack is located. The first digit will be followed by a dash (-). The next character will be an alphabetic designator to identify the patch panel in which the cable is terminated. This character will be followed by a dash (-). The last digit will be a numeric designator corresponding with the patch panel port into which the cable is terminated. For example: The cable to the first port in the first patch panel in LAN Zone 1, will be designated as 1-A-1. The cable to the second port will be 1-A-2. Cables to the second patch panel will be labeled 1-B-1, 1-B-2, 1-B-3, etc. Contractor will be responsible for clearly and visibly labeling each patch panel in accordance with the scheme described above.
   4. Patch Panel Scheme: The first portion of the I.D. number will correspond with the room number to which the cable runs. This number will be followed by a dash (-). The next portion of the I.D. number will be an alphabetic designator to identify the faceplate in the work area where the cable is terminated. This character will be followed by a dash (-). The last portion of the I.D. number will be a numeric designator that corresponds with the faceplate jack in which the cable is terminated. For example: The cable to the first jack in the first faceplate in Room 32 will be designated as 32-A-1. The cable to the second jack will be 32-A-2. Cables to the next faceplate in Room 32 will be labeled 32-B-1, 32-B-2, 32-B-3, etc. Contractor will be responsible for clearly and visibly labeling each faceplate in accordance with the scheme described above. Faceplates should be lettered in a clockwise sequence beginning at the main entrance into the room. Jacks on each faceplate will be sequenced in a clockwise direction beginning from the upper left-hand side of the faceplate. In situations where cable is run to an unnumbered room, Contractor will be responsible for coordinating with the appropriate government representative(s) to assign a number to the room.

## 3.4 EQUIPMENT CLOSETS

A. Equipment racks shall be bolted to the floor slab. Cable guides shall be bolted or screwed to racks. Racks shall be installed level.
   1. Patch Panels: High density, low profile patch panels shall be used in all locations. Patch panels may vary in number of ports provided, but shall be of the same manufacturer and series, for all closets. All patch panels will be populated with port counts that equal or exceed total ports needed, plus 10 percent, for each closet.

a. UTP Patch Panels: All patch panels used to terminate UTP cables shall comply with selected vendors channel rating for Category 6.
   1) Patch cables connecting data work ports to the LAN switches shall be Category 6 compliant, both cordage and couplers. Patch cables shall be constructed of stranded cable. Although the switches and other active components will be provided by the Owner, all patch cables shall be provided by Contractor to provide connection to these active components. Contractor shall also provide each Site a quantity of spare patch cables equal to 10 percent of the total used at that Site. Patch cables shall be appropriately sized to allow for a neat and maintainable system.
   2) All ports will be labeled in accordance with the labeling scheme described in this Specification.

## 3.5 TESTING

A. Horizontal Wiring Testing: Testing of all data horizontal UTP cables shall be performed in accordance with EIA/TIA TSB-1152 to ensure rating of Category 6 performance. Test parameters shall include wire mapping, attenuation, NEXT, and noise measurements to verify a limit below 100 megavolts.
   1. All distribution plant facilities associated with the new wiring system shall be tested and verified after installation activities and all major plant rearrangements have been completed. Tested copper pairs shall conform to the design guidelines as specified, as well as manufacturer's standards. Cable plant testing of the data jack will diagnose the presence of all open-loop conductors, noisy lines and distortion, low-loop current, high-loop loss, ringer failures, grounded, shorted or crossed conductors, dB loss, split connections, attenuation range, and/or near-end cross-talk. Contractor will supply complete testing and correction reports/information and explanation to the government, or designated representative, for review prior to acceptance of the system(s). Contractor and the government or designated representative will develop a mutually acceptable format for recording and reporting of testing results prior to the start of testing activities. All errors are to be corrected at Contractor's expense prior to providing the completed records.
      a. Perform Category 6 link tests in accordance with EIA TIA/EIA-568-C.1 and EIA TIA/EIA-568-C.2. Tests shall include wire map, length, insertion loss, NEXT, PSNEXT, ELFEXT, PSELFEXT, return loss, propagation delay, and delay skew.
   2. A wire map test will be performed as per TIA/EIA TSB-568-C.3. This test will be used to verify pair to pin termination at each end and check for installation connectivity errors.

B. Horizontal Wiring Testing (Test from Both Ends):
   1. The following parameters will be measured from both sides of the link:
      a. Attenuation: A measure of signal loss in the link.
      b. Near-End Crosstalk Loss (NEXT): A measure of signal coupling from one pair to another within a UTP cabling link and is derived from swept/stepping frequency voltage measurements.

C. Noise Testing:
   1. The noise level testing associated with the data circuit will only be required if problems occur with the previous test procedures, or if the manufacturer requests it for warranty purposes. If tested, it shall be measured over seven different frequencies.

a. Noise will be measured by recording interference from all outside sources (for example, power cables). The noise is generally steady throughout the entire frequency range and permanently exists. Acceptable levels will be the lower of the manufacturer's specifications or less than 100 megavolts.
b. Noise peaks will be measured by adjusting a threshold. All peaks that exceed the threshold will be documented. Acceptable peaks will be determined by the manufacturer's specifications, or by IEEE 802.3 10BaseT Ethernet Standards.

D. Additional Testing:
1. Any additional testing and/or documentation required by the manufacturer to show full compliance with warranty requirements shall be provided to the government by Contractor. Final test results will meet manufacturer's guidelines for the cabling channel.

E. Telecommunications Cabling Testing:
1. Perform telecommunications cabling inspection, verification, and performance tests in accordance with TIA-568-C.1, EIA TIA/EIA-568-C.2, EIA TIA/EIA-568-C.3, and TIA-568-2. Perform optical fiber field inspection tests via attenuation measurements on factory reels and provide results along with manufacturer certification for factory reel tests. Remove failed cable reels from Project Site upon attenuation test failure. All fiber optic, data, and telephone cables shall be terminated and tested.
2. For multimode optical fiber, perform optical fiber end-to-end attenuation tests in accordance with EIA TIA/EIA-568-C.3 and EIA TIA/EIA-526-14 using Method A, Optical Power Meter and Light Source for multimode optical fiber.

END OF SECTION

# SECTION 28 15 00 - INTEGRATED ACCESS CONTROL HARDWARE DEVICES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. This Section includes access control door hardware for the following:
   1. Swinging doors.
   2. Other doors to the extent indicated.
   3. Security or High Security keyed cylinders, including provisions for temporary construction keying, for mechanical override at access control locking hardware to be furnished under Division 08 71 00 "Door Hardware."
   4. Electrified and integrated access control card key door hardware.
   5. Security or high security keyed cylinders, including provisions for temporary construction keying, for mechanical override at access control locking hardware to be furnished under Division 08 71 00 "Door Hardware."

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Division 08 11 13 "Hollow Metal Doors and Frames."
   3. Division 08 41 13 "Aluminum-Framed Entrances and Storefronts."
   4. Division 08 71 00 "Door Hardware."
   5. Division 26 Section "Electrical" for connections to electrical power system and for low-voltage wiring work.
   6. Division 27 Section "Telephone Communications Cabling" for connections to the LAN.

### 1.2 REFERENCES

A. ANSI A117.1 (1998) - Accessible and Usable Buildings and Facilities.
B. IBC - International Building Code
C. NFPA 70 (2002) - National Electrical Code.
D. NFPA 80 (1999) - Fire Doors and Windows.
E. NFPA 101 (2006) - Life Safety Code.
F. UL 294 - Access Control Systems.
G. UL 1076 - Proprietary Burglar Alarm Units and Systems.

### 1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions, and finishes.

B. System Operational Descriptions: Complete system operational narratives for the integrated access controlled openings defining the owner's prescribed requirements for the opening functionality. Narratives include, but are not limited to, the following situations: normal secured/unsecured state of door; authorized access; authorized egress; unauthorized access; unauthorized egress; fire alarm and loss of power conditions, and interfaces with other building control systems.

C. Shop Drawings: Details of electrified integrated locking hardware and access control firmware, indicating the following:
   1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware and firmware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
      a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
      b. Complete (risers, point-to-point) access control system block wiring diagrams.
   2. Electrical Coordination: Coordinate with related Electrical Sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Proof of Certification: Upon request provide a copy of manufacturer's official certification or accreditation document indicating proof of status as a qualified and authorized provider of the primary access control components.

E. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete access control and site management installation in quantity as required in Division 01, Closeout Submittals. Manual to include name, address, and telephone number of the supplier / integrator providing the installation and the nearest service representatives for each item of equipment included in the system. The final copies delivered after completion of the installation test to include "as built" modifications made during installation, checkout, and acceptance.
   1. As-Built Drawings: During system installation, the Contractor to maintain a separate hard copy set of drawings, elevation diagrams, and wiring diagrams of the access control system to be used for record Drawings. This set to be kept up to date by the Contractor with all changes and additions to the access control system accurately recorded.

F. Warranties and Maintenance: Special warranties and maintenance agreements specified in this Section.

## 1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum of 5 years of documented experience in providing access control and security systems equipment and software similar to that indicated for this Project and that have a proven record of successful in-service performance.
   1. Software and access control systems components to have been previously and thoroughly tested together with proven installations similar in size and functionality to the design requirements indicated for this Project.

B. Supplier Qualifications: Supplier/dealers, verifiably authorized and in good standing with the primary product manufacturers, with a minimum of 3 years of experience supplying integrated access control systems similar in material, design, and scope to that indicated for this Project and whose work has resulted in construction with a proven record of successful in-service performance.

C. System Integrator Qualifications: Systems integrators, verifiably factory trained and certified by the primary product manufacturers, with a minimum of 3 years documented experience installing complete integrated access control systems similar in material, design, and scope to that indicated for this Project and whose work has resulted in construction with a proven record of successful in-service performance. Qualifications include, but are not necessarily limited, to the following:
   1. References: Provide a list of references for similar projects including contact name, phone number, name and type of project.
   2. Professional Staffing: Firms to have a dedicated access control systems integration department with full time, experienced professionals on staff experienced in providing on-site consulting services for both electrified door hardware and integrated access control systems installations.
   3. Factory Training: Installation and service technicians are to be competent factory trained and certified personnel capable of maintaining the system.
   4. Service Center: Firms to have a service center capable of providing training, in-stock parts, and emergency maintenance and repairs at the Project Site with 24-hour/7-days a week maximum response time.

D. Installer Qualifications: Certified technicians, verifiably authorized with the primary product manufacturers for installation of IP-Enabled, Wireless, and Power-over-Ethernet Access Control products in accordance with documented instructions and NFPA 80.
   1. ASSA ABLOY access control products are required to be installed only through designated "Preferred Installers."

E. Source Limitations: Obtain the access control door hardware, system firmware, and application software specified in this Section from a single source, qualified supplier/integrator unless otherwise indicated.
   1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
   2. Provide integrated access control door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

F. Regulatory Requirements: Comply with NFPA 70, NFPA 80, NFPA 101 and ANSI A117.1 requirements and guidelines as directed in the model building code including, but not limited to, the following:
   1. Comply with NFPA 70 "National Electrical Code", including electrical components, devices, and accessories listed and labeled as defined in Article 100 by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
   2. Where indicated to comply with accessibility requirements, comply with Americans with Disabilities Act (ADA), "Accessibility Guidelines for Buildings and Facilities (ADAAG)," ANSI A117.1.
   3. Comply with NFPA 101 "Life Safety Code" for doors in a means of egress.
   4. Comply with NFPA 80 "Fire Doors and Windows" for fire labeled opening assemblies.
   5. The installed access control system shall conform to all local jurisdiction requirements.

G. Keying Conference: Reference Section 08 71 00 "Door Hardware."

H. Pre-Submittal Conference: Conduct conference with attendance by representatives of supplier/dealer, systems integrator, and Contractor to review proper methods and procedures for receiving, handling, and installing the access control system hardware. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedules.

1. Inspect and discuss Division 26 electrical roughing-in and similar preparatory Work performed by other trades.
2. Review and verify sequence of operation descriptions for each unique access controlled opening.
3. Review and finalize construction schedule and verify availability of materials.
4. Review the required inspecting, testing, commissioning, and demonstration procedures.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Do not store electronic access control hardware, software or related accessories at Project Site without prior authorization.
   1. Access Control Firmware and Software: Where approved and directed, inventory upon receipt and store electronic access control equipment in a secure, temperature and humidity controlled environment in original manufacturer's sealed containers.

B. Tag each item or package separately with identification related to the final access control door Schedule, and include basic installation instructions with each item or package.

C. Deliver permanent keys, cores, access control credentials, software, and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner established at the “Pre-Submittal Conference."

1.6 COORDINATION

A. Coordinate quantity and arrangement of assemblies with ceiling space configuration and with components occupying ceiling space, including structural members, pipes, air-distribution components, raceways, cable trays, recessed lighting fixtures, and other items.

B. Access Control System Electrical Coordination: Coordinate the layout and installation of scheduled electrified door hardware, and related access control equipment, with required connections to source power junction boxes, power supplies, detection and monitoring hardware, and fire alarm system.
   1. Door Hardware Interface: The card key access control system to interface and be connected to electronic door control hardware (electromechanical locks, electric strikes, magnetic locks, door position switches, other monitoring contacts, and related auxiliary control devices) as described under Section 08 71 00 "Door Hardware." Coordinate the installation and configuration of specified door hardware being monitored or controlled with the controls, software, and access control hardware specified in this Section.

C. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing electrified door hardware and access control system components. Check Shop Drawings of other Work to confirm that adequate provisions are made for locating and installing access control system hardware to comply with indicated requirements.

D. Door and Frame Preparation: Reference Division 08, Openings: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling, and access control system hardware without additional in-field modifications.

1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article will not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and are in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of the installed access control system hardware and software that fails in materials or workmanship, including all related parts and labor, within specified warranty period after final testing and acceptance by the Owner. Failures include, but are not limited to, the following:
   1. Structural failures including excessive deflection, cracking, or breakage.
   2. Faulty operation of the hardware.
   3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
   4. Electrical component defects and failures within the systems operation.

C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.

D. Special Warranty Periods (Electrified Access Control Door Hardware):
   1. Two years for Electrified, Wiegand Output, and IP-Enabled Access Control Door Hardware.

E. Maintenance Support and Extended Service Agreement: Submit for Owner’s consideration an optional extended Service Agreement for the installed access control system, including support for software related issues. The extended service agreement is considered elective and is without manufacturer's requirement stipulating mandatory coverage for Owner and/or vendor system support.
   1. A published copy of this agreement to be included with the Submittal package.
   2. Support for the installed access control system components is provided through the vendor under a 24 hour technical assistance program.
   3. Access control and management system components are to be available on a one-day turn around time frame from the manufacturer.
   4. Primary systems manufacturer to offer and provide remote modem or internet access for direct factory support to the vendor. The factory level support to include diagnostics and troubleshooting support on systems related issues at no additional cost to the owner.

F. Access Control Software Upgrades: Version upgrades and "fix" releases to the access control system software are available at no extra charge as long as the version of software provided under this specification remains the current manufacturer’s version or for up to 2 years after a new version release.
   1. Major access control software revisions that provide new functionality to the product provided free of charge for up to 1 year from the date of Substantial Completion.
   2. Access control system software is to be upgradable as may be required or as necessary, to expand and manage the Owner’s Site or Sites. Upgrades are to be offered at a published flat fee for the primary system software, with single license modules included in the primary fee structure. System upgrades offered at a costing structure based upon the original number of licensed modules issued, or on those to be purchased at a future date, are not allowed.
   3. As part of the Submittal package, provide a list of available software upgrades and/or expansions modules. List to identify related costs for upgrades, or expansions to the original system, up to the next qualifying operational level.

1.8 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of the installed access control system hardware and components.

B. Maintenance Service: Beginning at Substantial Completion, and running concurrent with the specified warranty period, provide continuous 6 months full maintenance by skilled employees of the systems integrator. Include repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper door opening operation. Provide parts and supplies as used in the manufacture and installation of original products.

1.9 SCOPE OF WORK

A. On-Line Electronic Access Control System: Furnish and install at the indicated locations the specified electrified and integrated door hardware and access control firmware and software for a completely operational access control and security site management system. System includes, but is not necessarily limited, to the following:

1. Electrified integrated card reader locks and exit hardware, permanent and temporary override cylinders, network control processors, reader controller panels, I/O monitor/control interfaces, door position switches, remote card readers, keypads, and display terminals, access cards and credentials, system application software, special tools, operating manuals, and required cabling and accessories as detailed below and listed in the Access Control Hardware Sets at the end of Part 3.
    a. Provide the appropriate number of reader controller panels and I/O monitoring/control expansion interfaces as needed to handle the number of card readers, locking devices, door status devices, and identified alarm inputs specified in this section, and as shown on the security Drawings.
    b. Provide manufacturer approved integrated card reader locks, exit hardware, and remote mounted card readers, keypads, and display terminals that are functionally compatible with the specified access control equipment interfaces.
2. Access control system equipment to be installed in an enclosure box compatible with the specified components. This enclosure to include, but is not necessarily limited to, the network control processor, I/O monitor/control interface panels, power supplies, terminal strips, wire ducts, keyed lock cylinder, integrated outlet for A/C power, and standoffs.
    a. Enclosure box to be located in the designated IT/Telecom room(s) with connection to local area network for communication back to the central server host.
3. Owner to provide the following:
    a. Central server host computer, client workstations, and hardware peripherals to be from an approved, major line computer manufacturer. Specific information detailing compliance with system requirements to be included in the Project Submittal package as specified.
    b. Owner will be responsible for ensuring that each computer hardware component includes the required interfaces, expansion boards, and peripherals that will be necessary to allow the system to operate as described within this Specification and as indicated on the Drawings.

c. Power Sourcing and Network Switches: Quantity as required to accommodate installed access control (and video surveillance) devices.
d. Network Control Processor Connections:
1) LAN/Ethernet communication ports (jacks) and network interface cards as needed, CAT5e cabling from network router/switch to network control processor, outlet and cover plates, and/or patch cables required for network connection within each designated IT/Telecom room.
2) Required static IP addresses.

4. Power Supplies, including battery back up and separately fused surge protection, required for the electrified door hardware and access control equipment.
5. Installation, final configuration, and commissioning of electrified door and access control system hardware, communication firmware, power supplies, and related accessories.
6. System application software including installation, programming, and end user training of the access control system demonstrating operating, repair, and maintenance procedures. Include no fewer than 8 hours of on-site central server training for designated personnel (facilities maintenance, security, IT, administration) by a factory certified representative.
7. Provide manufacturer required power controllers, interface boards, and programming that may be required for approved electric latch retraction exit devices supplied under Section 08 71 00 "Door Hardware."
8. Electrical Contractor to provide the following:
a. Source power wiring (120VAC) as required for the electrified locking and access control hardware, equipment, accessories, and power supplies. This includes quad outlets as required on a dedicated circuit in the designated IT/Telecom room(s) and the related conduit, stub-in, junction boxes, and connectors required for the source power delivery and connections.
b. Provide required conduit, stub-in, junction, and back boxes for both the electrified locking hardware and access control equipment at each of the access controlled or monitored openings per plan drawings and specs. Supply and install conduit between each of the aforementioned devices and between the electrical junction boxes, power supplies, and access control equipment located on or above the door opening.
1) At wall mounted remote readers, provide conduit on the secured side of the door 36 inches from the finish floor and 6 inches from the edge of the frame, to the related power supplies and access control equipment.
2) At electrical hardware power transfers, provide conduit on the secured side of the opening from the power transfer, thru-wire hinge, or serviceable panel location on the frame jamb to the related power supplies and access control equipment.
c. Electrical Contractor to provide all 120VAC cabling connections and terminations from the electrical junction boxes to these electrical devices.
9. Access Control System Integrator to provide the following:
a. Low voltage wiring (12/24VDC) and communication cabling (RS-232/RS-485) from network control processors to reader controllers, I/O monitor/control interface panels, electrified and integrated locking hardware, remote card readers, keypads, or display terminals, monitoring and signaling switches, and power supplies. Work includes related connectors, final terminations, and hook-ups required for a complete and functional access controlled opening in accordance with applicable codes and specified system operational narratives.

10. Elevator Contractor to provide the following:
    a. Interface or landing of interface cable onto the elevator call button will be performed by a certified elevator Contractor.
    b. Coordinate with access control systems integrator provisions for a card reader with output allowing the elevator call button to be activated. A validated card read will be required for activation.
11. Full and seamless integration of the Site intrusion alarm service if applicable, with the installed Site access control system software.
12. Final connections to fire alarm system, if required, by electrical and fire alarm system Contractors.
13. Provide permits, submittals, and approvals required by the authority having jurisdiction prior to commencing with Work.
14. Provide manufacturer required power controllers, interface boards, and programming that may be required for approved electric latch retraction exit devices supplied under Section 08 71 00 "Door Hardware."
15. Electrical Contractor Provides the Following:
    a. Provide required conduit, stub-in, junction, and back boxes for both the electrified locking hardware and access control equipment at each of the access controlled or monitored openings per plan drawings and specs. Supply and install conduit between each of the aforementioned devices and between the electrical junction boxes, power supplies, and access control equipment located on or above the door opening.
        1) At off-line remote readers, provide conduit on the secured side of the door 36 inches from the finish floor and 6 inches from the edge of the frame to the related power supplies and access control equipment.
        2) At electrified hardware power transfers provide conduit on the secured side of the opening from the power transfer, thru-wire hinge, or serviceable panel location on the frame jamb to the related power supplies and access control equipment.
    b. Electrical Contractor to provide all 120VAC cabling connections and terminations from the electrical junction boxes to these electrical devices.
16. Access Control System Supplier Provide the Following:
    a. Low voltage wiring (12/24VDC) for the electrified locking hardware, remote card readers, monitoring and signaling switches, and power supplies. Work includes related connectors, final terminations and hook-ups required for a complete and functional access controlled opening in accordance with applicable codes and specified system operational narratives.
17. Typical System Requirements (Owner Provided): Central server host computer, client workstations, and hardware peripherals to be from an approved, major line computer manufacturer. Specific information detailing compliance with system requirements to be included in the Project Submittal package as specified.

## PART 2 - PRODUCTS

### 2.1 CABLES AND WIRING

A. Data Line Supervision: System to include alarm initiation capability in response to opening, closing, shorting, or grounding of data transmission lines.

B. Install appropriate number of conductor pairs, in the wire gage (AWG) recommended by manufacturer, corresponding to the electronic locking functions specified, amperage drawn and distances covered between the power supplies, power transfer devices, electrified hardware, and access control equipment.

2.2 ACCESS CONTROL HARDWARE FINISHES

A. Standard: Comply with BHMA A156.18.
B. Protect mechanical finishes on exposed surfaces from damage by applying temporary protective coverings before shipping.
C. Where specified, finishes on integrated card key locksets or exit hardware to incorporate an FDA recognized antimicrobial coating (i.e., MicroShield™) listed for use on equipment as a suppressant to the growth and spread of a broad range of bacteria, algae, fungus, mold and mildew.
D. BHMA Designations: Comply with base material and finish as specified.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance of the installed access control system.
B. Examine roughing-in for electrical source power to verify actual locations of wiring connections before electrified and integrated access control door hardware installation.
C. Examine roughing-in for LAN and control cable conduit systems to PCs, controllers, card readers, and other cable-connected devices to verify actual locations of conduit and back boxes before device installation.
D. Notify Engineer of any discrepancies or conflicts between the Specifications, Drawings and scheduled access controlled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Doors and frames at scheduled access controlled openings to be properly prepared to receive specified electrified and access control hardware and connections without additional in-field modifications.

3.3 INSTALLATION

A. Install each item of electronic integrated door hardware and access control equipment to comply with manufacturer's written instructions and according to Specifications.
B. Mounting Heights: Mount electronic integrated door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
    1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Engineerural Hardware for Standard Steel Doors and Frames."
    2. Wood Doors: DHI WDHS.3, "Recommended Locations for Engineerural Hardware for Wood Flush Doors."

3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."

C. Boxed Power Supplies: Verify locations.
   1. Configuration: Provide the least number of power supplies required to adequately serve doors with access control hardware and equipment.

D. Final connect the system control switches (integrated card key locking hardware, remote readers, keypads, display terminals, biometrics), and monitoring, and signaling equipment to the related controller devices at each opening to properly operate the electrified door and access control hardware according to system operational narratives.

E. Retrofitting: Install each door hardware and access control item to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

F. System Application Software: Install and test application(s) software and databases for the complete and proper operation of systems involved. Assign software license(s) to Owner.

## 3.4 FIELD QUALITY CONTROL

A. Field Inspection (Punch Report): Reference Sections 01 70 00 “Execution and Closeout Requirements.” Produce Project punch report for each installed door opening indicating compliance with approved Submittals and verification hardware is properly installed, operating, and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.
   1. Organization of List: Include separate door opening and deficiencies, and corrective action lists organized by mark, opening remarks and comments, and related opening images and video recordings.

B. Commissioning and Testing Schedule: Prior to final acceptance of the access control system installation, the following testing and documentation to be performed and provided to the Owner.
   1. Inspection: Verify that units and controls are properly installed, connected, and labeled and that interconnecting wires and terminals are identified.
   2. Pre-testing: Program and adjust the system and pretest all components, wiring, and functions to verify they conform to specified requirements. Provide testing reports indicating devices tested, pass/fail status, and actions taken to resolve problem(s) on failed tests.
   3. Acceptance Test Schedule: Correct deficiencies identified by tests and observations and retest until specified requirements are met.
   4. Provide “as designed” Drawings showing each device and wiring connection and electronic enclosure legends indicating cabling in and out.
   5. Provide a complete set of operating instructions for access control hardware devices and a complete software user manual. The documentation includes module reference guides for each electronic enclosure.

## 3.5 ADJUSTING

A. Adjust and check each operating item of integrated access control door hardware, and each door opening to ensure proper secured operation and function of every unit. Replace units that cannot be adjusted to operate as intended.

## 3.6 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by access control system installation.
B. Clean operating items as necessary to restore proper finish and provide final protection and maintain conditions that ensure access control door hardware is without damage or deterioration at time of owner occupancy.

## 3.7 DEMONSTRATION

A. Engage an authorized systems manufacturer representative to train Owner's maintenance personnel to adjust, operate, and maintain electronic integrated door hardware and the access control system.

## 3.8 ACCESS CONTROL HARDWARE SETS

A. The access control system hardware sets listed below represent the design intent and direction of the Owner, Engineer, and security consultant (as applicable). They are intended as a guideline only and should not be considered a detailed opening Schedule. Discrepancies, conflicting, and missing items should be brought to the attention of the Engineer with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
B. The supplier is responsible for handing and sizing all products and providing the correct option for the appropriate door type and material where more than one is presented in the hardware sets. Quantities listed are for each pair of doors or for each single door.
C. Refer to Section 08 71 00 "Door Hardware" for hardware sets.

END OF SECTION

# SECTION 31 10 00 - SITE CLEARING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Removing surface debris.
   2. Removing above- and below-grade site improvements.
   3. Removing designated trees, schrubs, and other plant life.
   4. Disconnecting, capping or sealing.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 01 50 00 "Temporary Facilities and Controls" for temporary erosion- and sedimentation-control measures.

### 1.2 DEFINITIONS

A. Subsoil: Soil beneath the level of subgrade; soil beneath the topsoil layers of a naturally occurring soil profile typified by less than 1 percent organic matter and few soil organisms.

B. Surface Soil: Soil that is present at the top layer of the existing soil profile. In undisturbed areas, surface soil is typically called "topsoil," but in disturbed areas, such as urban environments, the surface soil can be subsoil.

C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil; the zone where plant roots grow.

D. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil; the zone where plant roots grow. Its appearance is generally friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects larger than 2 inches in diameter; and free of weeds, roots, toxic materials, or other nonsoil materials.

E. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction and indicated on Drawings.

F. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction and indicated on Drawings.

G. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

### 1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

### 1.4 MATERIAL OWNERSHIP

A. Except for materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

### 1.5 SUBMITTALS

A. Section 01 33 00 "Submittal Procedures" for requirements for submittals.

B. Product Data: Submit data for herbicide. Indicate compliance with applicable codes for environmental protection.

1.6 INFORMATIONAL SUBMITTALS

A. Existing Conditions: Documentation of existing trees and plantings, adjoining construction, and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.
   1. Use sufficiently detailed photographs or video recordings.
   2. Include Plans and notations to indicate specific wounds and damage conditions of each tree or other plant designated to remain.
B. Topsoil stripping and stockpiling program.
C. Rock stockpiling program.
D. Record Drawings: Identifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions.
E. Burning: Documentation of compliance with burning requirements and permitting of authorities having jurisdiction. Identify location(s) and conditions under which burning will be performed.

1.7 QUALITY ASSURANCE

A. Conform to applicable codes for disposal of debris.
B. Perform Work in accordance with State of Texas Highways standard.
C. Topsoil Stripping and Stockpiling Program: Prepare a written program to systematically demonstrate the ability of personnel to properly follow procedures and handle materials and equipment during the Work. Include dimensioned diagrams for placement and protection of stockpiles.
D. Rock Stockpiling Program: Prepare a written program to systematically demonstrate the ability of personnel to properly follow procedures and handle materials and equipment during the Work. Include dimensioned diagrams for placement and protection of stockpiles.

1.8 FIELD CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
   1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
   2. Provide alternate routes around closed or obstructed trafficways if required by Owner or authorities having jurisdiction.
B. Improvements on Adjoining Property: Authority for performing site clearing indicated on property adjoining Owner's property will be obtained by Owner before award of Contract.
   1. Do not proceed with work on adjoining property until directed by Engineer.
C. Salvageable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.
D. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.

E. Do not commence site clearing operations until temporary erosion- and sedimentation-control measures are in place.

F. Soil Stripping, Handling, and Stockpiling: Perform only when the soil is dry or slightly moist.

## PART 2 - PRODUCTS

2.1 MATERIALS

A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Section 31 20 00 "Earth Moving."
   1. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.

## PART 3 - EXECUTION

3.1 PREPARATION

A. Call Local Utility Line Information service not less than 3 workings day before performing Work.
   1. Request underground utilities to be located and marked within and surrounding construction areas.

3.2 PREPARATION

A. Protect and maintain benchmarks and survey control points from disturbance during construction.
B. Verify that trees, shrubs, and other vegetation to remain or to be relocated have been flagged and that protection zones have been identified and enclosed according to requirements in Section 01 56 39 "Temporary Tree and Plant Protection."
C. Protect existing site improvements to remain from damage during construction.
   1. Restore damaged improvements to their original condition, as acceptable to Owner.
D. Identify waste area for placing removed materials.

3.3 TEMPORARY EROSION AND SEDIMENTATION CONTROL

A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways according to erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.
B. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
C. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.4 EXISTING UTILITIES

A. Owner will arrange for disconnecting and sealing indicated utilities that serve existing structures before site clearing, when requested by Contractor.
   1. Verify that utilities have been disconnected and capped before proceeding with site clearing.
B. Locate, identify, disconnect, and seal or cap utilities indicated to be removed.

1. Arrange with utility companies to shut off indicated utilities.
2. Owner will arrange to shut off indicated utilities when requested by Contractor.

C. Locate, identify, disconnect, cut, and plug utilities indicated to in place.

D. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others, unless permitted under the following conditions, then only after arranging to provide temporary utility services according to requirements indicated:
1. Notify Engineer not less than 2 days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without Engineer's written permission.

E. Excavate for and remove underground utilities indicated to be removed.

F. Removal of underground utilities is included in earthwork sections, in applicable fire suppression, plumbing, HVAC, electrical, communications, electronic safety and security, and utilities sections.

## 3.5 CLEARING AND GRUBBING

A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.
1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
2. Grind down stumps and remove roots larger than 2 inches in diameter, obstructions, and debris to a depth of 18 inches below exposed subgrade.
3. Use only hand methods or air spade for grubbing within protection zones.
4. Chip removed tree branches and stockpile in areas approved by Engineer.
5. Clear undergrowth and deadwood without disturbing subsoil.
6. Apply herbicide to remaining remaining stumps to inhibit growth.

B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches and compact each layer to a density equal to adjacent original ground.

## 3.6 TOPSOIL STRIPPING

A. Remove sod and grass before stripping topsoil.

B. Strip topsoil to depth indicated on Drawings in a manner to prevent intermingling with underlying subsoil or other waste materials.
1. Remove subsoil and nonsoil materials from topsoil including clay lumps, gravel, other objects larger than 2 inches in diameter, trash, debris, weeds, roots, and other waste materials.

C. Stockpile topsoil away from edge of excavations without intermixing with subsoil or other materials. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.
1. Limit height of topsoil stockpiles to 72 inches.
2. Do not stockpile topsoil within protection zones.
3. Dispose of surplus topsoil. Surplus topsoil is that which exceeds quantity indicated to be stockpiled or reused.
4. Stockpile surplus topsoil to allow for respreading deeper topsoil.
5. Stockpile sufficient quantities of on-site topsoil to later spread a minimum 6-inch-thickness off topsoil on landscaped (non-paved) Project areas.

## 3.7 SITE IMPROVEMENTS

A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate new construction.

B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.

1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut along line of existing pavement to remain before removing adjacent existing pavement. Saw-cut faces vertically.
2. Paint cut ends of steel reinforcement in concrete to remain with 2 coats of antirust coating following coating manufacturer's written instructions. Keep paint off surfaces that will remain exposed.

## 3.8 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris and legally dispose of them off Owner's property.

END OF SECTION

# SECTION 31 20 00 - EARTH MOVING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Excavating and filling for rough grading the Site.
   2. Preparing subgrades for slabs-on-grade, walks, pavements, turf and grasses, and plants.
   3. Excavating and backfilling for buildings and structures.
   4. Drainage course for concrete slabs-on-grade.
   5. Subbase course for concrete pavements.
   6. Subbase course and base course for asphalt paving.
   7. Subsurface drainage backfill for walls and trenches.
   8. Excavating and backfilling trenches for utilities and pits for buried utility structures.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 31 10 00 "Site Clearing" for site stripping, grubbing, stripping and stockpiling topsoil, and removal of above- and below-grade improvements and utilities.

### 1.2 DEFINITIONS

A. Backfill: Soil material or controlled low-strength material used to fill an excavation.
   1. Initial Backfill: Backfill placed beside and over pipe in a trench including haunches to support sides of pipe.
   2. Final Backfill: Backfill placed over initial backfill to fill a trench.

B. Base Course: Aggregate layer placed between the subbase course and hot-mix asphalt paving.

C. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.

D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

E. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.

F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
   1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Engineer. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
   2. Bulk Excavation: Excavation more than 10 feet in width and more than 30 feet in length.
   3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Engineer. Unauthorized excavation, as well as remedial Work directed by Engineer shall be without additional compensation.

G. Fill: Soil materials used to raise existing grades.

H. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material 3/4 cubic yards or more in volume that exceed a standard penetration resistance of 100 blows/2 inches when tested by a geotechnical testing agency according to ASTM D1586.
I. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
J. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.
K. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.
L. Utilities: On-site underground pipes, conduits, ducts, and cables as well as underground services within buildings.

1.3 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified testing agency.
B. Material Test Reports: For each on-site and borrow soil material proposed for fill and backfill as follows:
   1. Classification according to ASTM D2487.
   2. Laboratory compaction curve according to ASTM D698.
C. Preexcavation Photographs or Videotape: Show existing conditions of adjoining construction and site improvements including finish surfaces that might be misconstrued as damage caused by earth-moving operations. Submit before earth moving begins.

1.4 FIELD CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earth-moving operations.
   1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
   2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.
B. Utility Locator Service: Notify utility locator service for area where Project is located before beginning earth-moving operations.
C. Do not commence earth-moving operations until temporary site fencing and erosion- and sedimentation-control measures specified in Section 01 50 00 "Temporary Facilities and Controls" and Section 31 10 00 "Site Clearing" are in place.

**PART 2 - PRODUCTS**

2.1 SOIL MATERIALS

A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
B. Satisfactory Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM according to ASTM D2487, or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.

C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D2487, or a combination of these groups.
   1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940; with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.
F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve.
H. Drainage Course: Narrowly graded mixture of washed crushed stone, or crushed or uncrushed gravel; ASTM D448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2-inch sieve and zero to 5 percent passing a No. 8 sieve.
I. Filter Material: Narrowly graded mixture of natural or crushed gravel, or crushed stone and natural sand; ASTM D448; coarse-aggregate grading Size 67; with 100 percent passing a 1-inch sieve and zero to 5 percent passing a No. 4 sieve.
J. Sand: ASTM C33; fine aggregate.
K. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.

2.2 ACCESSORIES

A. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches-wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored as follows:
   1. Red: Electric.
   2. Yellow: Gas, oil, steam, and dangerous materials.
   3. Orange: Telephone and other communications.
   4. Blue: Water systems.
   5. Green: Sewer systems.

## PART 3 - EXECUTION

3.1 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth-moving operations.
B. Protect and maintain erosion and sedimentation controls during earth-moving operations.
C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.

## 3.2 DEWATERING

A. Provide dewatering system of sufficient scope, size, and capacity to control hydrostatic pressures and to lower, control, remove, and dispose of ground water and permit excavation and construction to proceed on dry, stable subgrades.
B. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
C. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
    1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.
D. Dispose of water removed by dewatering in a manner that avoids endangering public health, property, and portions of Work under construction or completed. Dispose of water and sediment in a manner that avoids inconvenience to others.

## 3.3 EXPLOSIVES

A. Explosives: Do not use explosives.

## 3.4 EXCAVATION, GENERAL

A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
    1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.
    2. Remove rock to lines and grades indicated to permit installation of permanent construction without exceeding the following dimensions:
        a. 24 inches outside of concrete forms other than at footings.
        b. 12 inches outside of concrete forms at footings.
        c. 6 inches outside of minimum required dimensions of concrete cast against grade.
        d. Outside dimensions of concrete walls indicated to be cast against rock without forms or exterior waterproofing treatments.
        e. 6 inches beneath bottom of concrete slabs-on-grade.
        f. 6 inches beneath pipe in trenches and the greater of 24 inches wider than pipe or 42 inches wide.

## 3.5 EXCAVATION FOR STRUCTURES

A. Excavate to indicate elevations and dimensions within a tolerance of plus or minus 1-inch. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
    1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other Work.

2. Pile Foundations: Stop excavations 6 to 12 inches above bottom of pile cap before piles are placed. After piles have been driven, remove loose and displaced material. Excavate to final grade leaving solid base to receive concrete pile caps.
3. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1-inch. Do not disturb bottom of excavations intended as bearing surfaces.

## 3.6 EXCAVATION FOR WALKS AND PAVEMENTS

A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

## 3.7 EXCAVATION FOR UTILITY TRENCHES

A. Excavate trenches to indicated gradients, lines, depths, and elevations.
   1. Beyond building perimeter, excavate trenches to allow installation of top of pipe below frost line.
B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated.
   1. Clearance: 12 inches each side of pipe or conduit.
C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
   1. For pipes and conduit less than 6 inches in nominal diameter, hand-excavate trench bottoms and support pipe and conduit on an undisturbed subgrade.
   2. For pipes and conduit 6 inches or larger in nominal diameter, shape bottom of trench to support bottom 90 degrees of pipe or conduit circumference. Fill depressions with tamped sand backfill.
   3. For flat-bottomed, multiple-duct conduit units, hand-excavate trench bottoms and support conduit on an undisturbed subgrade.
   4. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

## 3.8 SUBGRADE INSPECTION

A. Notify Engineer when excavations have reached required subgrade.
B. If Engineer determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
C. Proof-roll subgrade below the building slabs and pavements with a pneumatic-tired and loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
   1. Completely proof-roll subgrade in 1 direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.
   2. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Engineer, and replace with compacted backfill or fill as directed.

D. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.

E. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Engineer, without additional compensation.

## 3.9 UNAUTHORIZED EXCAVATION

A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2,500 psi, may be used when approved by Engineer.
   1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by Engineer.

## 3.10 STORAGE OF SOIL MATERIALS

A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
   1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

## 3.11 BACKFILL

A. Place and compact backfill in excavations promptly, but not before completing the following:
   1. Construction below finish grade including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
   2. Surveying locations of underground utilities for Record Documents.
   3. Testing and inspecting underground utilities.
   4. Removing concrete formwork.
   5. Removing trash and debris.
   6. Removing temporary shoring, bracing, and sheeting.
   7. Installing permanent or temporary horizontal bracing on horizontally supported walls.

B. Place backfill on subgrades free of mud, frost, snow, or ice.

## 3.12 UTILITY TRENCH BACKFILL

A. Place backfill on subgrades free of mud, frost, snow, or ice.

B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.

C. Trenches under Footings: Backfill trenches excavated under footings and within 18 inches of bottom of footings with satisfactory soil; fill with concrete to elevation of bottom of footings. Concrete is specified in Section 03 30 00 "Cast-in-Place Concrete."

D. Trenches under Roadways: Provide 4-inch thick, concrete-base slab support for piping or conduit less than 30 inches below surface of roadways. After installing and testing, completely encase piping or conduit in a minimum of 4 inches of concrete before backfilling or placing roadway subbase course. Concrete is specified in Section 03 30 00 "Cast-in-Place Concrete."

E. Backfill voids with satisfactory soil while removing shoring and bracing.

F. Initial Backfill:
   1. Soil Backfill: Place and compact initial backfill of satisfactory soil, free of particles larger than 1 inch in any dimension, to a height of 12 inches over the pipe or conduit.
      a. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.
   2. Controlled Low-Strength Material: Place initial backfill of controlled low-strength material to a height of 12 inches over the pipe or conduit. Coordinate backfilling with utilities testing.

G. Final Backfill:
   1. Soil Backfill: Place and compact final backfill of satisfactory soil to final subgrade elevation.

H. Warning Tape: Install warning tape directly above utilities 12 inches below finished grade except 6 inches below subgrade under pavements and slabs.

## 3.13 SOIL FILL

A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.

B. Place and compact fill material in layers to required elevations as follows:
   1. Under grass and planted areas, use satisfactory soil material.
   2. Under walks and pavements, use satisfactory soil material.
   3. Under steps and ramps, use engineered fill.
   4. Under building slabs, use engineered fill.
   5. Under footings and foundations, use engineered fill.

C. Place soil fill on subgrades free of mud, frost, snow, or ice.

## 3.14 SOIL MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
   1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
   2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

## 3.15 COMPACTION OF SOIL BACKFILLS AND FILLS

A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment and not more than 4 inches in loose depth for material compacted by hand-operated tampers.

B. Place backfill and fill soil materials evenly on all sides of structures to required elevations and uniformly along the full length of each structure.

C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D698:

1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent.
2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 92 percent.
3. Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 85 percent.
4. For utility trenches, compact each layer of initial and final backfill soil material at 85 percent.

## 3.16 GRADING

A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
   1. Provide a smooth transition between adjacent existing grades and new grades.
   2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.

B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to elevations required to achieve indicated finish elevations, within the following subgrade tolerances:
   1. Turf or Unpaved Areas: Plus or minus 1 inch.
   2. Walks: Plus or minus 1 inch.
   3. Pavements: Plus or minus 1/2-inch.

C. Grading inside Building Lines: Finish subgrade to a tolerance of 1/2-inch when tested with a 10-foot straightedge.

## 3.17 SUBBASE AND BASE COURSES UNDER PAVEMENTS AND WALKS

A. Place subbase course and base course on subgrades free of mud, frost, snow, or ice.

B. On prepared subgrade, place subbase course and base course under pavements and walks as follows:
   1. Place base course material over subbase course under hot-mix asphalt pavement.
   2. Shape subbase course and base course to required crown elevations and cross-slope grades.
   3. Place subbase course and base course 6 inches or less in compacted thickness in a single layer.
   4. Place subbase course and base course that exceeds 6 inches in compacted thickness in layers of equal thickness with no compacted layer more than 6 inches thick or less than 3 inches thick.

C. Pavement Shoulders: Place shoulders along edges of subbase course and base course to prevent lateral movement. Construct shoulders, at least 12 inches wide of satisfactory soil materials and compact simultaneously with each subbase and base layer to not less than 95 percent of maximum dry unit weight according to ASTM D698.

## 3.18 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified geotechnical engineering testing agency to perform tests and inspections.

B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed Work comply with requirements.

C. Footing Subgrade: At footing subgrades, at least 1 test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Engineer.

D. Testing agency will test compaction of soils in place according to ASTM D1556, ASTM D2167, ASTM D2937, and ASTM D6938, as applicable. Tests will be performed at the following locations and frequencies:

1. Paved and Building Slab Areas: At subgrade and at each compacted fill and backfill layer, at least 1 test for every 2,000 sq. ft. or less of paved area or building slab but in no case fewer than 3 tests.
2. Foundation Wall Backfill: At each compacted backfill layer, at least 1 test for every 100 feet or less of wall length but no fewer than 2 tests.
3. Trench Backfill: At each compacted initial and final backfill layer, at least 1 test for every 150 feet or less of trench length but no fewer than 2 tests.

E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; recompact and retest until specified compaction is obtained.

## 3.19 PROTECTION

A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.

B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.

1. Scarify or remove and replace soil material to depth as directed by Engineer; reshape and recompact.

C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.

1. Restore appearance, quality, and condition of finished surfacing to match adjacent Work, and eliminate evidence of restoration to greatest extent possible.

## 3.20 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION

# SECTION 31 22 13 - ROUGH GRADING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Excavating topsoil.
   2. Excavating subsoil.
   3. Cutting, grading, filling, rough contouring, and compacting site for site structures and building pads.

B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 31 10 00 "Site Clearing" for excavating topsoil.
   3. Section 31 23 23 "Fill" for general building area backfilling.

### 1.2 REFERENCES

A. ASTM International:
   1. ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
   2. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3).
   3. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
   4. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN-m/m3).
   5. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
   6. ASTM D2419 - Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate.
   7. ASTM D2434 - Standard Test Method for Permeability of Granular Soils (Constant Head).
   8. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
   9. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

### 1.3 SUBMITTALS

A. Section 01 33 00 "Submittal Procedures."
B. Samples: Submit, in air-tight containers, 10-pound sample of each type of fill to testing laboratory.
C. Materials Source: Submit name of imported materials suppliers.
D. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.4 SUSTAINABLE DESIGN SUBMITTALS

A. Manufacturer's Certificate: Certify products meet or exceed specified sustainable design requirements.

1.5 CLOSEOUT SUBMITTALS

A. Section 01 70 00 "Execution and Closeout Requirements" for requirements for submittals.
B. Project Record Documents: Accurately record actual locations of utilities remaining by horizontal dimensions, elevations or inverts, and slope gradients.

1.6 QUALITY ASSURANCE

A. Perform Work in accordance with ASTM C136, ASTM D2419, and ASTM D2434.
B. Perform Work in accordance with Highways standard.

**PART 2 - PRODUCTS**

2.1 MATERIALS

A. Topsoil: Type S3 as specified in Section 31 05 13 "Soils for Earthwork."
B. Subsoil Fill: Type as specified in Section 31 05 13 "Soils for Earthwork."
C. Structural Fill: Type as specified in Section 31 05 13 "Soils for Earthwork."

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Section 01 30 00 "Administrative Requirements" for verification of existing conditions before starting work.
B. Verify survey benchmark and intended elevations for Work are as indicated on Drawings.

3.2 PREPARATION

A. Call Local Utility Line Information service not less than 3 working days before performing Work.
    1. Request underground utilities to be located and marked within and surrounding construction areas.
B. Identify required lines, levels, contours, and datum.
C. Notify utility company to remove and relocate utilities.
D. Protect utilities indicated to remain from damage.

E. Protect plant life, lawns, rock outcropping, and other features remaining as portion of final landscaping.
F. Protect bench marks, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

## 3.3 SUBSOIL EXCAVATION

A. Excavate subsoil from areas to be further excavated, relandscaped, or regraded.
B. Do not excavate wet subsoil or excavate and process wet material to obtain optimum moisture content.
C. When excavating through roots, perform Work by hand and cut roots with sharp axe.
D. Remove excess subsoil not intended for reuse from site.
E. Stockpile subsoil in area designated on site to depth not exceeding 8 feet and protect from erosion.
F. Benching Slopes: Horizontally bench existing slopes greater than 1:4 to key placed fill material to slope to provide firm bearing.
G. Stability: Replace damaged or displaced subsoil as specified for fill.

## 3.4 FILLING

A. Fill areas to contours and elevations with unfrozen materials.
B. Install Work in accordance with Highways standards**.**

## 3.5 TOLERANCES

A. Section 01 40 00 "Quality Requirements" for tolerances.
B. Top Surface of Subgrade: Plus or minus 1/10-foot from required elevation.

## 3.6 FIELD QUALITY CONTROL

A. Section 01 40 00 "Quality Requirements" for field inspecting, testing, adjusting, and balancing.
B. Perform laboratory material tests in accordance with ASTM D1557.
C. Perform in place compaction tests in accordance with the following:
    1. Density Tests: ASTM D2922.
    2. Moisture Tests: ASTM D3017.
D. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.
    1. Paved and Building Slab Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 2,000 square feet or less of paved area or building slab, but in no case fewer than three tests.
    2. Foundation Walk Backfill: At each compacted backfill layer, at least one test for every 100 feet or less of wall length, but no fewer than two tests.
    3. Trench Backfill: At each compacted initial and final backfill layer, at least one tesst for every 150 feet or less of trench length but no fewer than two tests.

END OF SECTION

# SECTION 31 23 23 - FILL

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Backfilling building perimeter to subgrade elevations.
   2. Backfilling site structures to subgrade elevations.
   3. Fill under slabs on grade.
   4. Fill under paving.
   5. Fill for over-excavation.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 03 30 00 "Cast-in-Place Concrete" for concrete materials.
   3. Section 31 22 13 "Rough Grading" for Site filling.

### 1.2 REFERENCE STANDARDS

A. American Association of State Highway and Transportation Officials:
   1. AASHTO T 180 - Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg Rammer and a 457-mm Drop.

B. ASTM International:
   1. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3).
   2. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method.
   3. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3).
   4. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
   5. ASTM D6031 - Standard Test Method for Logging In Situ Moisture Content and Density of Soil and Rock by the Nuclear Method in Horizontal, Slanted, and Vertical Access Tubes.
   6. ASTM D6938 - Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Section 01 70 00 "Execution and Closeout Requirements" for installation examination.

B. Verify that subdrainage, dampproofing, and waterproofing installations have been inspected.

C. Verify that underground tanks are anchored to their own foundations to avoid flotation after backfilling.

D. Verify structural integrity of unsupported walls to support loads imposed by fill.

## 3.2 PREPARATION

A. Section 01 70 00 "Execution and Closeout Requirements" for installation preparation.
B. Compact subgrade to specified density requirements for subsequent backfill materials.
C. Soft Subgrade:
   1. Cut out soft areas of subgrade not capable of compaction in place.
   2. Backfill with structural fill and compact to density equal to or greater than specified requirements for subsequent fill material.
D. Scarify subgrade surface to depth of 6 inches.

## 3.3 BACKFILLING

A. Backfill areas to contours and elevations.
B. Systematically backfill to allow maximum time for natural settlement.
C. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces and do not backfill with frozen materials.
D. Place fill material in continuous layers and compact.
E. Use placement method that does not disturb or damage utilities in trench.
F. Maintain optimum moisture content of fill materials to attain required compaction density.
G. Structures:
   1. Backfill against supported foundation walls.
   2. Backfill simultaneously on each side of unsupported foundation walls until supports are in place.
   3. Slope grade away from building minimum 2 percent slope for minimum distance of 10 feet.
H. Make gradual grade changes and blend slope into level areas.
I. Remove surplus backfill materials from Site.
J. Leave fill material stockpile areas free of excess fill materials.

## 3.4 TOLERANCES

A. Section 01 40 00 "Quality Requirements" for tolerances.
B. Top Surface of Backfilling within Building Areas: Plus or minus 1 inch from required elevations.
C. Top Surface of Backfilling under Paved Areas: Plus or minus 1 inch from required elevations.
D. Top Surface of General Backfilling: Plus or minus 1 inch from required elevations.

## 3.5 PROTECTION

A. Section 01 70 00 "Execution and Closeout Requirements" for protecting finished Work.
B. Reshape and recompact fills subjected to vehicular traffic during construction.

END OF SECTION

# SECTION 32 11 23 - AGGREGATE BASE COURSES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Aggregate subbase.
   2. Aggregate base course.

B. Related Sections:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 31 22 13 "Rough Grading" for preparation of site for base course.
   3. Section 32 05 16 "Aggregates for Exterior Improvements."
   4. Section 32 12 16 "Asphalt Paving:" Finish asphalt courses.

### 1.2 REFERENCES

A. American Association of State Highway and Transportation Officials:
   1. AASHTO M288 - Standard Specification for Geotextile Specification for Highway Applications.

B. ASTM International:
   1. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
   2. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
   3. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
   4. ASTM D2940 - Standard Specification for Graded Aggregate Material For Bases or Subbases for Highways or Airports.
   5. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

### 1.3 SUBMITTALS

A. Section 01 33 00 "Submittal Procedures."

B. Product Data:
   1. Submit data for geotextile fabric and herbicide.

C. Samples: Submit, in air-tight containers, 10-pound sample of each type of aggregate fill to testing laboratory.

D. Materials Source: Submit name of aggregate materials suppliers.

E. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

### 1.4 QUALITY ASSURANCE

A. Furnish each aggregate material from single source throughout the Work.

B. Perform Work according to State of Texas Highways standards.

C. Maintain 1 copy of each document on site.

## PART 2 - PRODUCTS

2.1 AGGREGATE MATERIALS

A. Conform with requirementss of Type A, Grades 1 or 2, Item 247 of the TxDOT Standard Specifications for Construction of Highways, Street, and Bridges.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 30 00 "Administrative Requirements" for verification of existing conditions before starting Work.
B. Verify compacted substrate is dry.
   1. Proof roll substrate with in minimum 3 perpendicular passes to identify soft spots.
   2. Remove soft substrate and replace with compacted fill as specified in Section 31 23 23 "Fill."
C. Verify substrate has been inspected, gradients and elevations are correct.

3.2 PREPARATION

A. Correct irregularities in substrate gradient and elevation by scarifying, reshaping, and re-compacting.
B. Do not place fill on soft, muddy, or frozen surfaces.

3.3 AGGREGATE PLACEMENT

A. Spread aggregate over prepared substrate to total compacted thickness indicated on Drawings.
B. Roller compact aggregate to 95 percent maximum density.
C. Level and contour surfaces to elevations, profiles, and gradients indicated.
D. Add small quantities of fine aggregate to coarse aggregate when required to assist compaction.
E. Maintain optimum moisture content of fill materials to attain specified compaction density.
F. Use mechanical tamping equipment in areas inaccessible to compaction equipment.

3.4 TOLERANCES

A. Section 01 40 00 "Quality Requirements" for tolerances.
B. Maximum Variation From Flat Surface: 1/2-inch measured with 10-foot straight edge.
C. Maximum Variation From Thickness: 1/4-inch.
D. Maximum Variation From Elevation: 1/2-inch.

3.5 FIELD QUALITY CONTROL

A. Section 01 70 00 "Execution and Closeout Requirements" for field inspecting, testing, adjusting, and balancing.
B. Compaction testing will be performed according to ASTM D1557.

C. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.

D. Frequency of Tests: One test for every 1,000 square yards of each layer compacted aggregate.

3.6 COMPACTION

A. Compact materials to 98 percent of maximum density as determined from test strip, according to ASTM D2940.

END OF SECTION

# SECTION 32 12 16 - ASPHALT PAVING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Asphalt materials.
   2. Aggregate materials.
   3. Aggregate subbase.
   4. Asphalt paving base course, binder course, and wearing course.
   5. Asphalt paving overlay for existing paving.
   6. Surface slurry.

B. Related Requirement:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 31 22 13 "Rough Grading" for preparation of site for paving.
   3. Section 32 11 23 "Aggregate Base Courses" for compacted subbase for paving.

### 1.2 REFERENCE STANDARDS

A. AASHTO M17 - Standard Specification for Mineral Filler for Bituminous Paving Mixtures.
B. AASHTO M29 - Standard Specification for Fine Aggregate for Bituminous Paving Mixtures.
C. AASHTO M140 - Standard Specification for Emulsified Asphalt.
D. AASHTO M208 - Standard Specification for Cationic Emulsified Asphalt.
E. AASHTO M288 - Standard Specification for Geotextile Specification for Highway Applications.
F. AASHTO M320 - Standard Specification for Performance-Graded Asphalt Binder.
G. AASHTO M324 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
H. AASHTO MP1a - Standard Specification for Performance-Graded Asphalt Binder.
I. AI MS-2 - Mix Design Methods for Asphalt Concrete and Other Hot- Mix Types.
J. AI MS-19 - Basic Asphalt Emulsion Manual.
K. AI SP-2 - Superpave Mix Design.
L. ASTM C1371-2004a - Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers.
M. ASTM C1549-16 - Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer.
N. ASTM D242 - Standard Specification for Mineral Filler For Bituminous Paving Mixtures.
O. ASTM D692 - Standard Specification for Coarse Aggregate for Bituminous Paving Mixtures.
P. ASTM D946 - Standard Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction.
Q. ASTM D977 - Standard Specification for Emulsified Asphalt.
R. ASTM D1073 - Standard Specification for Fine Aggregate for Bituminous Paving Mixtures.

S. ASTM D1188 - Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Coated Samples
T. ASTM D2027 - Standard Specification for Cutback Asphalt (Medium-Curing Type).
U. ASTM D2397 - Standard Specification for Cationic Emulsified Asphalt.
V. ASTM D2726 - Standard Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures.
W. ASTM D2950 - Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods.
X. ASTM D3381 - Standard Specification for Viscosity-Graded Asphalt Cement for Use in Pavement Construction.
Y. ASTM D3515 - Standard Specification for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures.
Z. ASTM D3549 - Standard Test Method for Thickness or Height of Compacted Bituminous Paving Mixture Specimens.
AA. ASTM D3910 - Standard Practices for Design, Testing, and Construction of Slurry Seal.
BB. ASTM D6690 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
CC. ASTM E408-2019 - Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques.
DD. ASTM E903-2012 - Standard Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres.
EE. ASTM E1918-2016 - Standard Test Method for Measuring Solar Reflectance of Horizontal and Low-Sloped Surfaces in the Field.
FF. ASTM E1980-2019 - Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces.
GG. Texas Department of Transportation (TxDOT) Standard Specifications for Construction of Highways, Streets, and Bridges, 2014 edition.

## 1.3 SUBMITTALS

A. Section 01 33 00 "Submittal Procedures."
B. Product Data:
   1. Submit product information for asphalt and aggregate materials.
   2. Submit mix design with laboratory test results supporting design.
C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

## 1.4 QUALITY ASSURANCE

A. Mixing Plant: Conform to State of Texas Highways standard.

## 1.5 QUALIFICATIONS

A. Installer: Company specializing in performing Work of this Section with minimum 5 years' documented experience.

## 1.6 AMBIENT CONDITIONS

A. Section 01 50 00 "Temporary Facilities and Controls" for ambient conditions control facilities for product storage and installation.
B. Do not place asphalt mixture between November 1 and March 1.

C. Do not place asphalt mixture when ambient air or base surface temperature is less than 40 degrees F, or surface is wet or frozen.
D. Place asphalt mixture when temperature is not more than 15 degrees F less than initial mixing temperature.

## PART 2 - PRODUCTS

### 2.1 ASPHALT PAVING

A. Performance / Design Criteria:
   1. Paving: Design for movement of trucks up to 30,000 pounds.
B. Asphalt Materials:
   1. Asphalt Binder: In accordance with State of Texas Highways standards.
   2. Primer: ASTM D2027, MC-70; medium curing, cutback asphalt. In accordance with State of Texas Highways standards.
   3. Tack Coat: In accordance with State of Texas Highways standards.
   4. Reclaimed Asphalt Pavement (RAP): Processed material obtained by milling or full depth removal of existing asphalt paving.
   5. Oil: In accordance with Municipality of Highways standards.
C. Aggregate Materials:
   1. Coarse Aggregate: In accordance with State of TexasHighways standards.
   2. Fine Aggregate: ASTM D1073; natural sand or sand manufactured from stone, gravel, or blast furnace slag.
D. Aggregate Subbase: Specified in Section 32 11 23 "Aggregate Base Courses."

### 2.2 MIXES

A. Use dry material to avoid foaming. Mix uniformly.
B. Asphalt Paving Mixtures: Designed in accordance with State of Texas Highways standards with maximum 5 percent by weight reclaimed asphalt pavement.
   1. Base Course: Type A, Grades 1 or 2 of Item 247 of the TxDOT Standard Specifications for Construction of Highways, Street, and Bridges..
   2. Surface Course.

### 2.3 ACCESSORIES

A. Geotextile Fabric: AASHTO M288; non-woven, polypropylene.
B. Sealant: ASTM D6690, Type I; hot applied type.

### 2.4 SOURCE QUALITY CONTROL

A. Section 01 40 00 "Quality Requirements" for testing, inspection and analysis requirements.
B. Submit proposed mix design of each class of mix for review prior to beginning of Work.
C. Test samples in accordance with AI MS-2.

## PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 70 00 "Execution and Closeout Requirements:" Requirements for installation examination.
B. Verify utilities indicated under paving are installed with excavations and trenches backfilled and compacted.
C. Verify compacted subgrade subbase is dry.
   1. Proof roll subbase with in minimum 2 perpendicular passes to identify soft spots.
   2. Remove soft subbase and replace with compacted fill as specified in Section 31 23 23 "Fill."
D. Verify gradients and elevations of base are correct.

3.2 PREPARATION

A. Prepare subbase in accordance with State of Texas Highways standards. TxDOT Standard Specifications of Construction of Highways, Streets, and Bridges.

3.3 INSTALLATION

A. Subbase:
   1. Aggregate Subbase: Install as specified in Section 32 11 23 "Aggregate Base Courses."
   2. Prepare subbase in accordance with State of Texas Highways standards.
B. Primer:
   1. Apply primer in accordance with AI MS-2. State of Texas Highways standards.
C. Tack Coat:
   1. Apply tack coat in accordance with AI State oof Texas Highways standards.
D. Single Course Asphalt Paving:
   1. Install Work in accordance with State of Texas Highways standards.
   2. Place asphalt within 24 hours of applying primer or tack coat.
   3. Place asphalt wearing course to thickness indicated on Drawings.
   4. Compact paving by rolling to specified density. Do not displace or extrude paving from position. Hand compact in areas inaccessible to rolling equipment.
   5. Perform rolling with consecutive passes to achieve even and smooth finish without roller marks.
E. Double Course Asphalt Paving:
   1. Place asphalt binder course within 24 hours of applying primer or tack coat.
   2. Place binder course to thickness indicated on Drawings**.**
   3. Place wearing course within 24 hours of placing and compacting binder course. When binder course is placed more than 24 hours before placing wearing course, clean surface and apply tack coat before placing wearing course.
   4. Place wearing course to thickness indicated on Drawings.
   5. Compact each course by rolling to specified density. Do not displace or extrude paving from position. Hand compact in areas inaccessible to rolling equipment.
   6. Perform rolling with consecutive passes to achieve even and smooth finish, without roller marks.

F. Surface Slurry:
   1. Install uniform thickness surface slurry over existing paving in accordance with ASTM D3910.
G. Allow slurry to cure.
   1. Roll paving to achieve uniform surface.

3.4 TOLERANCES

A. Section 01 40 00 "Quality Requirements."
B. Flatness: Maximum variation of 1/4-inch measured with 10-foot straight edge.
C. Scheduled Compacted Thickness: Within 1/4-inch.
D. Variation from Indicated Elevation: Within 1/2-inch.

3.5 FIELD QUALITY CONTROL

A. Take samples and perform tests including mat density tests in accordance with State of TexasHighways standards.
B. Asphalt Paving Mix Temperature: Measure temperature at time of placement.
C. Asphalt Paving Thickness: ASTM D3549; test one core sample from every 1,000 square yards compacted paving.
D. Asphalt Paving Density: ASTM D1188 or ASTM D2726; test 1 core sample from every 1,000 square yards compacted paving.

3.6 PROTECTION

A. Section 01 70 00 "Execution and Closeout Requirements" for protecting finished Work.
B. Immediately after placement, protect paving from mechanical injury for 8 hours or until surface temperature is less than 140 degrees F.

END OF SECTION

# SECTION 32 13 13 - CONCRETE PAVING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes concrete pavement, curb and gutter.
B. Section Applies:
   1. Where Contractor elects to remove, or required to remove, and replace concrete pavement, curb and gutter, driveway (alleys), and sidewalks.
   2. For repair or replacing facilities otherwise damaged by Contractor operations.
C. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 03 30 00 "Cast-in-Place Concrete."
   3. Section 32 12 16 "Asphalt Paving."

### 1.2 DEFINITIONS

A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, expansive hydraulic cement, fly ash and other pozzolans, ground granulated blast-furnace slag, and silica fume.
B. TxDOT: Texas Department of Transportation "Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges" 2014.
C. DMS: TxDOT Department of Material Specifications.

### 1.3 SUBMITTALS

A. Submit product data per Section 01 33 00 "Submittal Procedures."
B. Product Data: For each type of manufactured material and product indicated.
C. Design Mixes: For each concrete pavement mix. Include alternate mix designs when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments. Design shall indicate target unit weight of mix. Mix design shall not be in excess of 30 days old without Engineer approval.
D. Design mix submittals shall include:
   1. Fine aggregate gradation.
   2. Course aggregate gradation.
   3. Loss from five-cycle magnesium sulfate or sodium sulfate test on all aggregate.
   4. Cement content.
   5. Fly ash content.
   6. Water content.
   7. All admixtures.
   8. Maximum slump.
   9. Percent air entrainment.
   10. Seven-day flexural strength.
   11. Seven-day compressive strength.
   12. 28-day compressive strength.

E. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated, based on flexural and comprehensive testing of current materials:
   1. Cementitious materials and aggregates.
   2. Steel reinforcement and reinforcement accessories.
   3. Fiber reinforcement.
   4. Admixtures.
   5. Curing compounds.
   6. Applied finish materials.
   7. Bonding agent or adhesive.
   8. Joint fillers.

F. Paving and Quality Control Plan (PQCP): Submit a PQCP for approval before beginning pavement construction operations. Include details of all operations in concrete paving process, including longitudinal construction joint layout, sequencing, curing, lighting, early opening, leave-outs, sawing, inspection, testing, construction methods, other details and description of all equipment. List certified personnel performing testing. Submit revisions to PQCP for approval.

## 1.4 QUALITY ASSURANCE

A. Installer Qualifications: Experienced installer who completed pavement work similar in material, design, and extent to that indicated for Project and whose work resulted in construction with a record of successful in-service performance.

B. Manufacturer Qualifications: Manufacturer of ready-mixed concrete products complying with ASTM C94 requirements for production facilities and equipment.
   1. Manufacturer must be certified per National Ready-Mix Concrete Association's Plant Certification Program.
   2. Inspection report signed and sealed by a licensed Professional Engineer showing concrete measuring, mixing, and delivery equipment meets all requirements of ASTM C94. New certification or signed/sealed report required every time plant is moved. Provide copy of certification or signed/sealed inspection report to Engineer.
   3. When equipment or facilities fail to meet specification requirements, remove from service until corrected.

C. Testing Agency Qualifications: Independent testing agency, acceptable to authorities having jurisdiction.

D. Source Limitations: Obtain each type or class of cementitious material of same brand from same manufacturer's plant and each aggregate from one source. For changes in material, brand, source, or chemical admixtures, reevaluate mix as a new mix design.

E. ACI Publications: Comply with ACI 301, "Specification for Structural Concrete," unless modified by Contract Document requirements. Refer to Section 03 30 00 "Cast-In-Place Concrete," for additional codes and standards.

F. Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests and design concrete mixes.

## 1.5 PROJECT CONDITIONS

A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities and emergency services.

## PART 2 - PRODUCTS

2.1 FORMS

A. Pavement Forms: Provide metal side forms of sufficient cross section, strength and rigidity to support paving equipment and resist impact and vibration of operation without visible springing or settlement. Use forms free from kinks, bonds, or warps that affect ride quality or alignment.
   1. Use flexible or curved forms for curves of a radius 100 feet or less.
   2. Forms should be no less than 10 feet in length.

2.2 PLACING, CONSOLIDATING, AND FINISHING EQUIPMENT

A. Provide approved self-propelled paving equipment to uniformly distribute concrete with minimal segregation and provide a smooth machine-finished consolidated concrete pavement conforming to plan line and grade. Provide approved automatic grade control system on slip-forming equipment. Provide approved mechanically-operated finishing floats to produce a uniformly-smooth pavement surface. Provide equipment to provide fine, light-water fog mist.

B. Provide mechanically-operated vibratory equipment to adequately consolidate concrete. Provide immersion vibrators on paving equipment at sufficiently close intervals to provide uniform vibration and consolidation of concrete over entire width and depth of pavement per manufacturer recommendations. Provide immersion vibrator units to operate at least 8,000 cycles per minute frequency in air. Provide enough hand-operated immersion vibrators for timely and proper consolidation of concrete along forms, at joints, and areas not covered by other vibratory equipment. Surface vibrators may be used to supplement equipment-mounted immersion vibrators. Provide tachometers to verify proper operation of all vibrators.

C. For small/irregular areas or when approved, paving equipment described herein not required.

2.3 REINFORCING STEEL INSERTING EQUIPMENT

A. Inserting equipment may not be used in place of two-piece tie bars or drilled and epoxy bars.

2.4 TEXTURING EQUIPMENT

A. Carpet Drag. Provide carpet drag mounted on Work bridge or moveable support system. Provide single piece of carpet of sufficient transverse length to span full width of pavement placed and adjustable so a sufficient longitudinal length of carpet is in contact with concrete placed to produce desired texture. Obtain approval to vary length and width of carpet to accommodate specific applications. Use artificial grass-type carpet with molded polyethylene pile face with a 5/8- to 1-inch blade length, minimum 70-ounce-per-square-yard weight, and strong, durable, rot-resistant backing material bonded to facing.

B. Tining Equipment. Provide self-propelled transverse metal tine device equipped with 4- to 6-inch steel tines and with cross-section approximately 1/32-inch thick by 1/12-inch wide, spaced at 1 inch center-to-center. Only use hand-operated tining equipment to produce equivalent texture on small or irregularly-shaped areas or, when permitted, in emergencies due to equipment breakdown.

2.5 CURING EQUIPMENT

A. Provide self-propelled machine for applying membrane curing compound using mechanically-pressurized spraying equipment with atomizing nozzles. Provide equipment and controls to maintain required uniform rate of application over entire paving area. Provide curing equipment independent of all other equipment when production rates are so the first application of membrane curing compound cannot be accomplished immediately after texturing and after free moisture disappears. Only use hand-operated pressurized spraying equipment with atomizing nozzles on small or irregular areas or, when permitted, in emergencies due to equipment breakdown.

2.6 SAWING EQUIPMENT

A. Provide power-driven concrete saws to saw joints shown on Plans. Provide standby power-driven concrete saws during concrete sawing operations. Provide adequate illumination for nighttime sawing.

2.7 GRINDING EQUIPMENT

A. When required, provide self-propelled powered grinding equipment specifically designed to smooth and texture concrete pavement using circular diamond blades. Provide equipment with automatic grade control to grind at least a 3-foot-width longitudinally in each pass without damaging concrete.

2.8 TESTING EQUIPMENT

A. Provide testing equipment regardless of job-control testing responsibilities per TxDOT Item 421, "Hydraulic Cement Concrete," unless otherwise shown in Plans or specified.

2.9 CORING EQUIPMENT

A. When required, provide coring equipment to extract cores per requirements of Tex-424-A.

2.10 MISCELLANEOUS EQUIPMENT

A. Furnish both 10- and 15-foot steel or magnesium long-handled standard straightedges. Furnish enough Work bridges, long enough to span pavement, for finishing and inspection operations. Furnish date stencils to impress pavement placement dates into fresh concrete, with numerals approximately 2 inches high by 1 inch wide by 1/4-inch deep.

2.11 STEEL REINFORCEMENT

A. Plain-Steel Welded Wire Fabric: ASTM A185, fabricated from as-drawn steel wire into flat sheets, shall be 6- by 6-inch, 10-gauge welded wire fabric, or as shown on Plans.
B. Reinforcement Bars: ASTM A615, Grade 60, deformed.

C. Joint Dowel Bars: Plain steel bars, ASTM A615, Grade 60. Cut bars true to length with ends square and free of burrs.
D. Tie Bars: ASTM A615, Grade 60, deformed.
E. Hook Bolts: ASTM A307, Grade A, internally and externally threaded. Design hook-bolt joint assembly to hold coupling against pavement form and in position during concreting operations, and permit removal without damage to concrete or hook bolt.
F. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcement bars, welded-wire fabric, and dowels in place. Manufacture bar supports per CRSI "Manual of Standard Practice," from steel wire, plastic, or precast concrete or fiber-reinforced concrete of greater compressive strength than concrete, and:
    1. Equip wire bar supports with sand plates or horizontal runners where base material will not support chair legs.
    2. Space reinforcing supports at 5-foot maximum in any direction.
    3. Place vertical reinforcement supports drilled into sub-base material to prevent horizontal movement of reinforcing steel.

## 2.12 CONCRETE MATERIALS

A. Use same brand and type of cementitious material from same manufacturer throughout Project.
B. Portland Cement: ASTM C150, Types I, II, or III or ASTM G176 IA, IIA, or IIIA for air entrained. Fly ash may be substituted at up to a 30 percent rate by absolute volume of cement. Portland cement concrete should have minimum seven-day compressive strength of 3,500 psi or minimum 28-day compressive strength of 4,400 psi. Concrete material should comply with TXDOT Standard Specifications 2014, Item 360.
C. Aggregate: ASTM C33, uniformly graded, from a single source, as follows:
    1. Class: 4M.
    2. Maximum Aggregate Size: 1-1/2 inches nominal.
    3. Coarse aggregate for Class C or D concrete shall be crushed limestone (Brownwood type or equivalent). Aggregate shall be graded fine-to-coarse and conform to ASTM C136. Gradation for aggregate shall meet these requirements by weight:

| FINE AGGREGATE | | COARSE AGGREGATE | |
|---|---|---|---|
| Sieve | Percent Passing | Sieve | Percent Passing |
| 3/8-inch | 100 | 2 inch | 100 |
| No. 4 | 95-100 | 1-1/2 Inch | 100 |
| No. 8 | 80-100 | | |
| No. 16 | 50-85 | 3/4-inch | 35-70 |
| No. 30 | 25-60 | 3/8-inch | 10-30 |
| No. 50[1] | 5-30 | No. 4 | 0-5 |
| No. 100 | 0-10 | | |
| No. 200[2] | 0-3 | | |

[1] Range is 6-35 when sand equivalent volume is greater than 85.
[2] Range is 0-6 for manufactured sand.

    a. Maximum amounts of organic impurities shall conform to ASTM C40 and C87. Maximum amounts of impurities finer than #200 sieve shall conform to ASTM C117. Maximum amounts of soft particles shall conform to ASTM C123. Maximum amounts of friable particles shall conform to ASTM C142.
    b. Fine aggregate shall have sand equivalent at least 80 per Tex-203-F. Provide fine aggregate with fineness modules 2.3 - 3.1 per ASTM C33.

c. Protect stockpiles from dusty conditions by drift fences or other methods approved by Engineer. Stockpiling methods used shall not allow aggregate to roll down slope as added to existing stockpiles. Build stockpiles in layers of uniform thickness. Equipment not permitted to operate over same lift repeatedly.

4. Coarse aggregate shall have maximum 18 percent loss when subjected to five cycles of magnesium sulfate soundness test or maximum 12 percent loss when subjected to five cycles of a sodium sulfate soundness test (ASTM C88).
5. Percentage of wear shall be no more than 40 when tested per ASTM C131 or C535.
6. Aggregates delivered to mixer shall consist of crushed stone, crushed gravel, or natural sand. Crushing shall result in a product where coarse aggregate shall have at least 95 percent by weight of particles with one or more fractured faces and 75 percent by weight of particles with two or more fractured faces. Aggregate shall be composed of sound, tough, durable particles and meet requirements for deleterious substances given in ASTM C33. Aggregate in any size group shall not contain more than 8 percent by weight of flat or elongated pieces. A flat or elongated particle has a ratio between maximum and minimum dimensions of circumscribing rectangular prism exceeding 3 to 1.

D. Water: ASTM C94.

## 2.13 ADMIXTURES

A. Admixtures certified by manufacturer to contain no more than 0.1 percent water-soluble chloride ions by mass of cement and compatible with other admixtures.
B. Air-Entraining Admixture: ASTM C260. Certified by manufacturer compatible with other required admixtures.
C. Water-Reducing Admixture: ASTM C494, Type A.
D. High-Range, Water-Reducing Admixture: ASTM C494, Types F or G.
E. Water-Reducing and Accelerating Admixture: ASTM C494, Type E.
F. Water-Reducing and Retarding Admixture: ASTM C494, Type D.

## 2.14 FIBER REINFORCEMENT

A. Only use fiber reinforcement in place of wire mesh if approved by Engineer and Owner.
B. Fiber reinforcement shall be 100 percent virgin polypropylene, collated, fibrillated fibers, made for use as concrete reinforcement, containing no reprocessed olefin materials, and conforming to ASTM C1116, Type III.
C. Specific gravity: .91.
D. Tensile Strength: 70,000 - 100,000 psi.
E. Length: 2 inches.

## 2.15 CURING COMPOUND

A. Liquid-type membrane-forming curing compound with white pigment complying with ASTM C309, Type 2, Class A. Moisture loss not more than 1.0 pound per square yard when applied at 200 square feet per gallon.

## 2.16 EPOXY

A. Provide Type III epoxy per DMS-6100, "Epoxies and Adhesives," for installing all drilled-in reinforcing steel.

2.17 EVAPORATION RETARDANT

A. Provide evaporation retardant per DMS-4650, "Hydraulic Cement Concrete Curing Materials and Evaporation Retardants."

2.18 JOINT SEALANTS AND FILLERS

A. Provide Class 5 or 8 joint-sealant materials and fillers unless otherwise shown on Plans or approved and other sealant materials of size, shape, and type shown on Plans per DMS-6310, "Joint Sealants and Fillers."

2.19 RELATED MATERIALS

A. Expansion- and Isolation-Joint-Filler Strips: ASTM D1751, asphalt-saturated cellulosic fiber.
B. Texture Surface for Ramps
   1. Meet requirements of Texas Accessibility Standards.
   2. Concrete paver units shall meet all requirements of ASTM C936 and C33 and laid in a two by two-unit basket-weave pattern.
   3. Color as selected by Owner but a contrasting color with adjacent surfaces.
   4. Durabak with Safti-Traxx Detacable Warning System by Cote-L Distribution Company, or approved equal.
   5. Owner may modify texture surface requirements for ramps by Owner any time to comply with Texas Accessibility Standards. No additional compensation made for such modification.
C. Bonding Agent: Polyvinyl acetate or acrylic base.
D. Sand Cushion: Clean, manufactured, or natural sand with plasticity index of eight or less.

2.20 CONCRETE MIXES

A. Prepare design mixes, proportioned per ACI 301, for each type and strength of normal-weight concrete determined by laboratory trial mixes or field experience.
B. Use a qualified independent testing agency for preparing and reporting proposed mix designs for trial batch method. Do not use Owner's field quality-control testing agency as independent testing agency.
C. Classification. The following classes of concrete shall be used:
D. Proportion mixes to provide concrete with water-cementitious materials ratio noted.
E. Mix Design:
   1. At least 15 days before beginning any concrete pavement construction, Contractor shall submit the following to Engineer for approval:
      a. Test certificates from approved commercial testing laboratory on all proposed aggregate. Certificates shall indicate material source, gradation, and loss from five-cycle magnesium sulfate soundness test (not to exceed 18 percent) or loss from five cycles of sodium sulfate soundness test (not to exceed 12 percent).
      b. Mix design based on water-cement ratio.
      c. Results of flexural and compression tests per ASTM C39 and/or flexural tests per ASTM C78, made by approved commercial testing laboratory. Tests shall be made on six cylinders/beams at curing times appropriate to concrete class.

2. Engineer will approve/reject mix design and materials based on submittals. This approval is subject to additional testing during construction. Mix designs for various classes of concrete shall conform to:

| Class | Maximum Water/Cement Ratio | Maximum Slump Inches |
|---|---|---|
| A | .60 | 4 |
| B | .60 | 3 |
| C (slip formed) | .45 | 3 |
| COC (formed) | .45 | 6 |
| E | .45 | as specified by concrete batch plant |

3. Strength Requirements: Test at least three sets of design strength specimens with two specimens per set. Various classes of concrete shall conform to the following strengths in psi as determined by average of two test cylinders and beams:

| | | COMPRESSIVE | | FLEXURAL | |
|---|---|---|---|---|---|
| Class | 3-Day | 7-Day | 28-Day | 7-Day | 28-Day |
| A | | 2,100 | 3,000 | 425 | |
| B | 2,500 | 3,000 | - | 280 | |
| C | | 3,500 | 4,400 | 750 | 680 |
| D | | - | | - | |
| E | 2,600 (24-hr) | Unless otherwise specified | | 400 (24-hr) | |

F. Properties
1. Air Entrainment: 4 percent ASTM C260. If air content is more than 1 percentage points below/above required air, reject load of concrete.
2. Synthetic Fiber: Use manufacturer-recommended rate, but not less than 1.0 pound per cubic yard (where applicable).
3. Fly Ash: Not more than 30 percent by absolute volume of cement.

2.21 CONCRETE MIXING

A. Ready-Mixed Concrete: Comply with requirements, ASTM C94, and C1116 when synthetic fibers involved.
1. When air temperature is 85-90 degrees F, reduce mixing and delivery time from 90 to 75 minutes. When air temperature is above 90 degrees F, reduce mixing and delivery time to 60 minutes.
2. Mixing and delivery time starts at time of batching.

B. Project-Site Mixing: Comply with requirements and measure, batch, and mix concrete materials and concrete per ASTM C94. Mix concrete materials as appropriate and approved by Engineer.
1. For mixers of 1 cubic yard or smaller capacity, continue mixing at least 1.5 but not more than 5 minutes after ingredients are in mixer, before releasing any part of batch.
2. For mixers of capacity larger than 1 cubic yard, increase mixing time by 15 seconds for each additional 1 cubic yard.

3. Provide batch ticket for each batch discharged and used in Work, indicating Project identification name and number, date, mix type, mix time, quantity, and amount of water added. Batch ticket shall also indicate batching operation variances per ACI 304R.
    a. Cement and supplementary cementitious material within ±1 percent of desired weight.
    b. Aggregates measured within ±2 percent of desired weight (±1 percent when cumulative weight is taken).
    c. Allowable water adjusted for free moisture in aggregates.
    d. Admixtures discharged separately within a volumetric tolerance of ±3 percent using a method that does not allow concentrated admixtures to contact each other.
4. When using non-agitating equipment for transporting concrete, provide equipment with smooth, mortar-tight metal containers equipped with gates that prevent accidental discharge of concrete.

## PART 3 - EXECUTION

### 3.1 PREPARATION

A. Proof-roll prepared subbase surface to check for unstable areas and verify need for additional compaction. Proceed with pavement only after nonconforming conditions have been corrected and subgrade is ready to receive pavement.

B. Remove loose material from compacted subbase surface immediately before placing concrete.

### 3.2 PLACING AND REMOVING FORMS

A. Use clean and oiled forms. Secure forms on base or firm subgrade accurately graded providing stable support without deflection and movement by form-riding equipment. Pin every form at least at middle and near each end. Tightly join and key form sections together to prevent relative displacement.

B. Set side forms far enough in advance of concrete placement to permit inspection. Check conformity of grade, alignment, and stability of forms immediately before placing concrete. Make all necessary corrections. Use a straightedge or other approved method to test top of forms to ensure ride quality requirements for completed pavement is met. Stop paving operations if forms settle or deflect more than 1/8-inch under finishing operations. Reset forms to line and grade and refinish concrete surface to correct grade.

C. Avoid damage to edge of pavement when removing forms. Repair damage resulting from form removal and honeycombed areas with mortar mix within 24 hours after form removal, unless otherwise approved. Clean joint face and repair honeycombed or damaged areas within 24 hours after bulkhead for transverse construction joint removed, unless otherwise approved. When forms are removed before 72 hours after concrete placement, promptly apply membrane curing compound to edge of concrete pavement.

D. Forms not the same depth as pavement but within 2 inches of depth are permitted if subbase is trenched or full width and length of form base supported with firm material to produce required pavement thickness. Promptly repair form trench after use. Use flexible/curved wood or metal forms for curves of 100-foot radius or less.

## 3.3 STEEL REINFORCEMENT

A. Comply with CRSI "Manual of Standard Practice" for fabricating reinforcement and recommendations in CRSI "Placing Reinforcing Bars" for placing and supporting reinforcement.
B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.
D. Install welded wire fabric in lengths as long as practicable. Lap adjoining pieces at least one full mesh, and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

## 3.4 JOINTS

A. Reinforcing Steel and Joint Assemblies: Accurately place and secure in position all reinforcing steel as shown on Plans. Place dowels at mid-depth of pavement slab, parallel to surface. Place dowels for transverse contraction joints parallel to pavement edge. Tolerances for location and alignment of dowels shown on Plans. Stagger longitudinal reinforcement splices to avoid more than one-third of splices within a 2-foot longitudinal length of each lane of pavement. Use multiple-piece tie bars or drill and epoxy grout tie bars at longitudinal construction joints. Verify tie bars drilled and epoxied into concrete at longitudinal construction joints develop a pullout resistance equal to minimum three quarters of yield strength of steel after 7 days. Test fifteen bars using ASTM E488, except alternate approved equipment may be used. All fifteen tested bars must meet required pullout strength. If any test results do not meet required minimum pullout strength, perform corrective measures to provide equivalent pullout resistance. Repair damage from testing. Acceptable corrective measures include but not limited to installation of additional or longer tie bars.
B. Construct isolation, contraction, construction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated. When joining existing pavement, place transverse joints to align with previously placed joints, unless otherwise indicated.

C. Construction Joints: Set at side and end terminations of pavement and where pavement operations are stopped more than 0.5 hour, unless pavement terminates at isolation joints.
    1. Continue reinforcement across construction joints but do not continue reinforcement through sides of pavement strips, unless otherwise indicated.
    2. Provide tie bars at sides of pavement strips where indicated.
    3. Use bonding agent where fresh concrete is placed against hardened or partially-hardened concrete surfaces.
D. Isolation Joints: Form of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.
    1. Extend joint fillers full width and depth of joint.
    2. Terminate joint filler less than 1/2- or more than 1 inch below finished surface if joint sealant indicated.
    3. Place top of joint filler flush with finished concrete surface if joint sealant not indicated.

4. Furnish joint fillers in one-piece lengths. Where more than one length required, lace or clip joint-filler sections together.
5. Protect top edge of joint filler during concrete placement with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete is placed on both sides of joint.

## 3.5 CONCRETE DELIVERY

A. Clean delivery equipment as necessary to prevent accumulation of old concrete before loading fresh concrete. Use agitated delivery equipment for concrete designed with a slump more than 5 inches. Segregated concrete is subject to rejection. Place agitated concrete within 60 minutes after batching. Place non-agitated concrete within 45 minutes after batching. In hot weather or under conditions causing quick setting concrete, times may be reduced by Engineer. Time limitations may be extended if Contractor can demonstrate concrete can be properly placed, consolidated, and finished without additional water.

## 3.6 CONCRETE PLACEMENT

A. For all roadway lane pavement, construct pavement with approved slip-form paving machine designed to spread, consolidate, screed, and float-finish freshly-placed concrete in one complete pass of machine so dense and homogeneous pavement is achieved with minimal hand finishing. Paver-finisher shall be heavy duty, self-propelled machine designed specifically for paving and finishing high-quality concrete pavements. Individual placement areas of less than 500 square yards, or irregular areas where inaccessible to slip-form paving equipment, place cement concrete pavement with approved placement and finishing equipment utilizing stationary side forms. Only utilize hand screeding and float finishing on small irregular areas as allowed by Engineer.

B. Concrete Placement: Do not allow pavement edge to deviate from established paving line by more than 1/2-inch at any point. Place concrete as near as possible to final location, and minimize segregation and rehandling. Where hand spreading necessary, distribute concrete using shovels. Do not use rakes or vibrators to distribute concrete.
   1. Pavement: Consolidate all concrete by approved mechanical vibrators operated on front of paving equipment. Use immersion-type vibrators to simultaneously consolidate full width of placement when machine finishing. Keep vibrators from dislodging reinforcement. Use hand-operated vibrators to consolidate concrete in areas inaccessible to machine-mounted vibrators. Do not operate machine-mounted vibrators while paving equipment is stationary. Vibrator operations subject to review.

C. Curbs and Gutters: When automatic machine placement is used for curb and gutter placement, submit revised mix design and laboratory test results to meet/exceed requirements. Produce curbs and gutters to required cross section, lines, grades, finish, and jointing as specified for formed concrete. If results not approved, remove and replace with formed concrete.

D. When adjoining pavement lanes are placed in separate pours, do not operate equipment on concrete until pavement attains 85 percent of 28-day compressive strength.

E. Cold-Weather Placement: Comply with ACI 306.1. Protect concrete Work from physical damage or reduced strength caused by frost, freezing actions, or low temperatures.
   1. When air temperature falls to, or is expected to fall below, 40 degrees F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature not less than 50 nor more than 80 degrees F at point of placement.

2. Do not use frozen materials or materials containing ice or snow.
3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators, unless otherwise specified and approved in mix designs.

F. Hot-Weather Placement: Place concrete per recommendations in ACI 305R and as follows when hot-weather conditions exist:
1. Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 degrees F. Chilled mixing water or chopped ice may be used to control temperature, if water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor option.
2. Cover reinforcement steel with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
3. Fog-spray forms, reinforcement steel, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

## 3.7 CONCRETE FINISHING

A. Finish all concrete pavement with approved self-propelled equipment. Use power-driven spreaders, vibrators, and strike-off, screed, or approved alternate equipment. Use transverse finishing equipment to compact and strike off concrete to required section and grade without surface voids. Use float equipment for final finishing. Use concrete with a consistency to allow completion of all finishing operations without addition of water to surface. Use minimal amount of water fog mist necessary to maintain moist surface. Reduce fogging if float or straightedge operations result in excess slurry.
1. Finished Surface: As soon as concrete hardens sufficiently, test pavement surface in transverse direction with 16-foot straightedge or other specified device. Surface smoothness deviations shall not exceed 1/4-inch from 16-foot straightedge at any location, including placement along and spanning any pavement joint or edge.
a. Mark areas in slab showing high spots more than 1/4-inch but not exceeding 1/2-inch in 16 feet and immediately grind down with approved grinding machine to elevation that falls within tolerance of 1/4-inch or less. Where departure from correct cross section exceeds 1/2-inch, remove and replace pavement at expense of Contractor when Engineer directs.
2. Maintain Surface Moisture: Prevent surface drying of pavement before application of curing system. Accomplish by fog application of evaporation retardant on pavement surface. Apply evaporation retardant at manufacturer-recommended rate. Reapply evaporation retardant as needed to maintain concrete surface in a moist condition until curing system applied. Do not use evaporation retardant as finishing aid. Failure to take acceptable precautions to prevent surface drying of pavement is cause for shut down of pavement operations.
3. Surface Texturing: Perform using combination of carpet drag and metal tining. Complete final texturing before concrete attains initial set. Draw carpet drag longitudinally along pavement surface with carpet contact surface area adjusted to provide a satisfactory coarsely textured surface. Metal-tine texture finish required unless otherwise shown on Plans. Provide metal-tine finish immediately after concrete surface set enough for consistent tining. Operate metal-tine device to obtain grooves spaced at 1 inch, approximately 3/16-inch deep, minimum 1/8-inch depth, and approximately 1/12-inch wide. Do not overlap a previously-tined area. Use manual methods for achieving similar results on ramps and other irregular sections of pavements. Repair damage to edge of slab and joints immediately after texturing. Do not tine pavement to overlay.

a. Burlap Finish: For sidewalks, drag a seamless strip of damp burlap across float-finished concrete, perpendicular to line of traffic, to provide a uniform, gritty texture.
b. Medium-to-Fine-Textured Broom Finish: For curb and gutter, draw a soft bristle broom across float-finished concrete surface perpendicular to line of traffic to provide a uniform, fine-line texture.
c. Medium-to-Coarse-Textured Broom Finish: For fillets, driveways, and alleys, provide coarse finish by striating float-finished concrete surface 1/16- to 1/8-inch deep with stiff-bristled broom, perpendicular to line of traffic. Tined Finish: For concrete pavement, perform surface texturing using a combination carpet drag and metal tining. Complete final texturing before concrete attains initial set. Draw carpet drag longitudinally along pavement surface with carpet contact surface area adjusted to provide a satisfactory coarsely-textured surface.

4. Small or Irregular Placements. Where machine placements and finishing concrete pavement not practical, use hand equipment and procedures to produce a consolidated and finished pavement section to line and grade.
5. Emergency Procedures. Use hand-operated equipment for applying texture, evaporation retardant, and cure in event of equipment breakdown.

## 3.8 CONCRETE PROTECTION AND CURING

A. Curing: Keep concrete pavement surface from drying by water fogging until curing material is applied. If forms removed during day of placement, apply curing compound to exposed areas. When placing concrete pavement, place curing compound on backside of curb. Maintain and promptly repair damage to curing materials on exposed surfaces of concrete pavement continuously at least three curing days unless specified otherwise. A curing day is a 24-hour period when temperature taken in shade away from artificial heat is above 50 degrees F at least 19 hours or surface temperature of concrete is maintained above 40 degrees F, 24 hours. Curing begins when concrete curing system is applied. Stop concrete paving if curing compound not applied promptly and maintained adequately.

B. Protect freshly-placed concrete from excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and follow recommendations in ACI 305R for hot-weather protection during curing. Submit for approval, proposed measures to protect concrete from anticipated freezing weather for first 72 hours after placement. Repair or replace all concrete damaged by freezing.

C. Evaporation Retarder: Apply to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2-pound per square foot by height before and during finishing operations. Apply per manufacturer-written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

D. Begin curing after finishing concrete but not before free water disappears from concrete surface.

E. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination:

1. Moisture Curing: Keep surfaces continuously moist no less than seven days with:
   a. Water.
   b. Continuous water-fog spray.
   c. Absorptive cover, water saturated, kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.

2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape. Curing Compound: After texturing and immediately after free surface moisture disappears, spray concrete surface uniformly with two coats of membrane-curing compound at individual application rate not more than 180 square feet per gallon. Apply first coat within 10 minutes after completing texturing operations. Apply second coat within 30 minutes after completing texturing operations. Before and during application, maintain curing compounds in uniformly-agitated condition, free of settlement. Do not thin or dilute curing compound. Where coating shows discontinuities, other defects, or rain falls on newly-coated surface before film dries enough to resist damage, apply additional compound at same rate of coverage to correct damage. Ensure curing compound coats sides of tining grooves.
3. Curing Class E Concrete: For all Class HES concrete pavement, provide membrane curing per Section 360.4.I.1, "Membrane Curing," followed promptly by moisture curing until opening strength achieved, but not less than 24 hours.

## 3.9 SAWING JOINTS

A. Saw joints to depth shown on Plans as soon as sawing accomplished without damage to pavement regardless of time of day or weather conditions. Once sawing commences, continue until completed. All such sawing must be completed within 12 hours of placement. Use chalk line, string line, sawing template, or other approved method to provide a true joint alignment. Provide enough saws to match paving production rate to ensure sawing completion at earliest possible time to avoid uncontrolled cracking. Reduce paving production if necessary to ensure timely sawing of joints. Promptly restore membrane cure damaged within first 72 hours of curing.

## 3.10 PROTECT PAVEMENT AND OPENING TO TRAFFIC

A. Testing for early opening is Contractor responsibility regardless of job-control testing responsibilities unless otherwise shown on Plans or directed. Testing result interpretation for opening to traffic is subject to Engineer approval.
1. Protect Pavement: Erect and maintain barricades and other standard and approved devices to exclude all vehicles and equipment from newly-placed pavement for periods specified. Before opening to traffic, protect pavement from damage due to crossings using approved methods. Where detour not readily available or economically feasible, occasional crossing of roadway with overweight equipment may be permitted for relocating equipment only, but not for hauling material. When occasional crossing of overweight equipment permitted, temporary matting or other approved methods may be required. Maintain adequate supply of sheeting or other material to cover and protect fresh concrete surface from weather damage. Apply as needed to protect pavement surface from weather.
2. Opening Pavement to All Traffic: Pavement 7 days old may be opened to all traffic. Before opening to traffic, clean pavement, place stable material against pavement edges, seal joints, and perform all other traffic safety-related Work.

3. Opening Pavement to Construction Equipment: Unless otherwise shown on Plans, concrete pavement may be opened early to concrete paving equipment and related delivery equipment after concrete is at least 48 hours old and opening strength is demonstrated per "Early Opening to All Traffic," before curing complete. Keep delivery equipment at least 2 feet from edge of concrete pavement. Keep tracks of paving equipment at least 1 foot from pavement edge. Protect textured surfaces from paving equipment. Restore damaged membrane curing as soon as possible. Repair pavement damaged by paving or delivery equipment before opening to all traffic.
4. Early Opening to All Traffic: Concrete pavement may be opened after curing is complete and concrete attains a flexural 450-psi strength or 2,800-psi compressive strength, except that pavement using Class HES concrete may be opened after 24 hours if specified strength achieved.
    a. Strength Testing: Test concrete specimens cured under same conditions as portion of pavement involved.
5. Emergency Opening to Traffic: Under emergency conditions, when pavement is at least 72 hours old, open pavement to traffic when directed in writing. Remove all obstructing materials, place stable material against pavement edges, and perform other Work involved in providing for safety of traffic as required for emergency opening.

## 3.11 PAVEMENT THICKNESS

A. Engineer will check thickness per Tex-423-A unless other methods shown on Plans. Engineer will perform one thickness test consisting of one reading at the approximate center of each lane every 500 feet or fraction thereof. Core where directed per Tex-424-A to verify deficiencies more than 0.2 inches from plan thickness and determine limits of deficiencies of more than 0.75 inches from plan thickness. Fill core holes using a concrete mixture and method approved by Engineer.
    1. Thickness Deficiencies Greater than 0.2-inch: When any depth test measured per Tex-423-A is deficient more than 0.2-inch from plan thickness, take one 4-inch diameter core at that location to verify measurement. If core is deficient more than 0.2 but not by more than 0.75-inch from plan thickness, take two additional cores from unit (as defined herein) at intervals at least 150 feet, locations selected by Engineer, and determine thickness of unit for payment purposes by average length of three cores. In calculations of average thickness of this unit of pavement, measure in excess of specified thickness more than 0.2-inch considered specified thickness +0.2 inches.
    2. Thickness Deficiencies Greater than 0.75-inch: If core is deficient more than 0.75, take additional cores at 10-foot intervals in each direction parallel to centerline to determine boundary of deficient area. Engineer will evaluate any area of pavement found deficient in thickness by more than 0.75-inch but not more than 1 inch. As directed, remove and replace deficient areas without additional compensation or retain deficient areas without compensation. Remove and replace any area of pavement found deficient in thickness by more than 1 inch without additional compensation.
    3. Pavement Units for Payment Adjustment: Limits for applying payment adjustment for deficient pavement thickness from 0.20-inch to not more than 0.75 inch, are 500 foot of pavement in each lane. Lane width as shown on typical sections and pavement design standards.

a. For greater than 0.75-inch deficient thickness, limits for applying zero payment or requiring removal defined by coring or equivalent nondestructive means as Engineer determines. Remaining portion of unit determined less than 0.75-inch deficient subject to payment adjustment based on average core thickness at each end of 10-foot interval investigation as Engineer determines.
b. Measure shoulders for thickness unless otherwise shown on Plans. Shoulders 6 feet wide or wider considered lanes. Shoulders less than 6 feet wide considered part of adjacent lane.
c. Limits for applying payment adjustment for deficient pavement thickness for ramps, widenings, acceleration and deceleration lanes, and other miscellaneous areas are 500 feet in length. Ares less than 500 feet in length will be individually evaluated for payment adjustment based on plan area.

4. Deficient Thickness Adjustment: Where average thickness of pavement is deficient in thickness more than 0.2-inch but not more than 0.75 inches, payment made using adjustment factor as specified in Table 2 applied to bid price for deficient area for each unit as defined herein.

**Table 2 - DEFICIENT THICKNESS PRICE ADJUSTMENT FACTOR**

| Deficiency in Thickness Determined by Cores (in.) | Proportional Part of Contract Price Allowed (adjustment factor) |
|---|---|
| Not deficient | 1.00 |
| Over 0.00 through 0.20 | 1.00 |
| Over 0.20 through 0.30 | 0.80 |
| Over 0.30 through 0.40 | 0.72 |
| Over 0.40 through 0.50 | 0.68 |
| Over 50.0 through 0.75 | 0.57 |

## 3.12 PAVEMENT MARKINGS

A. Permanent pavement markings shall be reflectorized multipolymer applied per manufacturer recommendations including surface preparation.
B. Materials and installation for surface markings shall be per TxDOT Specifications.

## 3.13 FIELD QUALITY CONTROL

A. Testing Agency: Contractor shall sample materials, perform tests, and submit test reports during concrete placement. Contractor personnel performing testing must be ACI-certified or qualified by recognized equivalent written and performance testing program for tests performed. Sampling and testing for quality control include those specified herein.

B. Job-Control Testing: Unless otherwise shown on Plans, perform all fresh and hardened concrete job-control testing at specified frequency. Using a commercial laboratory is acceptable. Maintain all testing equipment calibrated per pertinent test methods. Make strength-testing equipment available to Engineer for verification testing. Provide Engineer the opportunity to witness all tests. Engineer may require retest if not given opportunity to witness. Furnish copy of all tests results to Engineer daily. Engineer will direct random job-control sampling and testing. Immediately investigate and take corrective action as approved if any Contractor test results, including tests performed for verification purposes, does not meet specification requirements. When job-control testing by Contractor is waived by Plans, Engineer will perform testing; however, this does not waive Contractor responsibility for providing materials and Work per this Item.

C. Job-Control Strength: Unless otherwise shown on Plans or permitted by Engineer, use seven-day job-control strength testing per ASTM C78. When job-control concrete strength test value is more than 10 percent below required job-control strength or three consecutive job-control strength values fall below required job-control strength, investigate strength test procedures, quality of materials, concrete production operations, and other possible problem areas to determine cause. Take necessary action to correct problem, including redesigning concrete mix if needed. Owner may suspend concrete paving if Contractor unable to identify, document, and correct cause of low-strength test values in timely manner. If any job-control strength is more than 15 percent below required job-control strength, Engineer will evaluate structural adequacy of pavements. When directed, remove and replace pavements found structurally inadequate at no additional cost.

D. Testing Services: Performed per the following requirements:

1. Sampling Fresh Concrete: Obtain representative samples of fresh concrete per ASTM C172, except modified for slump to comply with ASTM C94.
2. Flexural and Compressive-Strength Tests: ASTM C78 and C39; one set for each day's pour of each concrete class exceeding five but less than 25 cubic yards, plus one set for each additional 50 cubic yards. Test one specimen at 7 days and two specimens at 28 days. Retain one specimen in reserve for later testing if required. Provide Engineer the opportunity to witness all tests. Engineer may require a retest if not given the opportunity to witness. Furnish a copy of all test results to Engineer daily. Check first few concrete loads for slump, air, and temperature on start-up production days to check for concrete conformance and consistency. Sample and prepare strength test specimens (two specimens per test) on first day of production and each 2,000 square yards or fraction thereof of concrete pavement thereafter. Prepare at least one set of strength-test specimens for each production day. Perform slump, air, and temperature tests each time strength specimens made. Monitor concrete temperature to ensure concrete is consistently within temperature requirements. Engineer will direct random job-control sampling and testing. Immediately investigate and take corrective action as approved if any Contractor test result, including tests performed for verification purposes, does not meet specification requirements.
3. When frequency of testing provide fewer than five strength tests for given class of concrete, test from at least five randomly-selected batches or from each batch if fewer than five are used.
4. Slump: ASTM C143; one test at point of placement for each strength test, but not less than one test for each day's pour of each type of concrete. Additional tests will be required when concrete consistency changes.
5. Air Content: ASTM C231, pressure method; one test for each strength test, but not less than one test for each day's pour of each type of air-entrained concrete.

6. Concrete Temperature: ASTM C1064; one test hourly when air temperature is 40 degrees F and below, 80 degrees F and above, and one test for each set of strength specimens.
7. Test Specimens: ASTM C31; one set of two standard beams and one set of four standard cylinders for each flexural and compressive-strength test, unless otherwise indicated. Flexural strength test specimens cured under same conditions as portion of pavement involved. Molded and stored cylinders for laboratory-cured test specimens unless field-cured test specimens required.

E. Report test results in writing to Engineer and Contractor within 24 hours of testing. Reports of strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing agency, concrete type and class, location of concrete batch in pavement, design strengths at required time, concrete mix proportions and materials, breaking strengths, and type of break for both 7- and 28-day tests.

F. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Engineer but not used as sole basis for approval/rejection.

G. Additional Tests: Contractor shall additionally test concrete when test results indicate slump, air entrainment, concrete strengths, or other requirements not met, as Engineer directed. Contractor may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C42, or by other methods as directed.

H. Contractor shall pay for failing tests.

I. Questionable Concrete:
1. Concrete considered "Questionable Concrete" with any of these test evaluations:
   a. Individual test strength is below specified strength; or
   b. Samples of concrete for acceptance test cylinders or acceptance test beams not representative of concrete-in-place in pavement; or
   c. Insufficient or inadequate concrete curing; or
   d. Insufficient number of acceptance test cylinders or acceptance test beams for day's concreting made for testing.
   e. In-place core densities, on average, are less than 97 percent of original mix design density, or any one core is below 96 percent original mix design density.
2. Except where core tests impair strength of structure, core test as Owner directs made at no cost to Owner to resolve Questionable Concrete. If core tests fail to demonstrate test strength required by Contract Documents or structural analysis does not confirm adequacy of structure, Owner may, at his discretion, reject Work or require load tests or additional construction. Should structural analysis confirm adequacy of pavement, Owner may, at his discretion, accept concrete with credit for full value of concrete delivered to Site per General Conditions.
3. Contractor shall pay all costs incurred in providing the additional testing or analysis to resolve acceptability of Questionable Concrete.
4. Core Tests
   a. Take three representative cores from each member or area of concrete for each test considered questionable. Location of cores as directed by Owner to least impair strength of pavement. Replace damaged cores.
   b. Obtain and test cores per ASTM C42 except if concrete in structure will be dry under service conditions, cores shall be air dried (60-80 degrees F, and relative humidity less than 60 percent) for 7 days before test, tested dry. If concrete in structure is more than superficially wet under service conditions, cores shall be immersed in water at least 48 hours and tested wet.

## 3.14 REPAIRS AND PROTECTION

A. Remove and replace concrete pavement that is broken, damaged, or defective, or does not meet requirements herein.

B. Drill test cores where directed by Engineer when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with Portland cement concrete bonded to pavement with epoxy adhesive.

C. Protect concrete from damage. Exclude traffic from pavement for at least 14 days after placement. When construction traffic permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.

D. Maintain concrete pavement free of stains, discoloration, dirt, and other foreign material from construction traffic. Sweep concrete pavement no more than two days before date scheduled for opening section to public traffic.

END OF SECTION

***INTEROFFICE MEMORANDUM***

**TO:** **Erika Munoz, Purchasing Manager**

**FROM:** **Jeffery Ahrlett, Director of Solid Waste**

**SUBJECT:** **Request to reject and reissue bids for the Citizen Collection Station North and Citizen Collection Station West Construction.**

**DATE:** **November 2, 2023**

I am requesting the approval to reject the sole proposal and reissue a request for proposals for the construction of the Citizen Collection Station North and Citizen Collection Station West projects. Unfortunately, we were unable to agree on terms with the sole proposal received and are rejecting that proposal to reissue bids. Plans and specifications are provided from the professional services agreement with Parkhill for the design and construction documents for the Citizen Collection Stations construction.

Due to the continued growth throughout the City of Midland, Solid Waste believes it is necessary to construct two Citizen Collection Stations to better serve our residents. The North Citizen Collection Station will be located on North 349 near the new water tower. The West Citizen Collection Station will be located on business 20 near Big Sky Drive in.

This project has two phases:

- Design and Bid Phase - $613,800
- Construction Phase – Estimated cost - $6,000,000

Solid Waste is seeking council approval to reject the sole proposal and reissue a request for proposals for bids for the continuation of the Citizen Collection Station North and Citizen Collection Station West construction project.

# City Council Meeting

**Item Number:** 12

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Erika Martinez, Manager, Purchasing

**Subject:** RESOLUTION AUTHORIZING THE PURCHASE OF HERBICIDE FOR THE PLANT FARM FROM HELENA AGRI-ENTERPRISES, LLC OF STANTON, TEXAS, AT A TOTAL COST OF $134,691.00 (DISTRICT: NONE) (GENERAL SERVICES)

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**Purpose:**

Resolution authorizing the purchase of Herbicide for the Plant Farm for the Utilities Department.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

Funding is available in the Water and Sewer operating budget.

**Discussion:**

Bid requests for Herbicide for the Plant Farm were issued to twenty-five (25) vendors. We received two (2) bids. Please see the attached memo from Melissa Looney, Water Reclamation Facility and Spraberry Superintendent, for more information.

Therefore, please consider approval of a resolution awarding the purchase of Herbicide for the Spraberry Farm as shown in the table below:

| Items | Bidders | Cost |
|---|---|---|
| **1 thru 4** | Helena Agri Enterprises LLC of Stanton, Texas | $134,691.00 |
| | | |

| | |
|---|---|
| Total estimated cost for Fiscal Year 2024 | **$134,691.00** |

Morris Williams Jr.

City Manager's Office

MIDLAND
Water Pollution Control Plant

***INTEROFFICE MEMORANDUM***

**TO:** **Regina Stephenson, General Services Director, Erika Martinez, Purchasing Manager**

**FROM:** **Melissa N. Looney, Superintendent**

**SUBJECT:** **Recommend Award for purchase of Herbicides for Plant Farm**

**DATE:** **October 10, 2023**

Consider a resolution approving the award of purchases in the amount of $ 134,691.00 to the bidder Helena Agri-Enterprises LLC for the purchase of 1,000 gallons of Xtendamax for $72,000.00, 1,750 gallons of Powermax Roundup for $42,875.00, 275 gallons of Smoke for $12,512.50 and 45 gallons of Outlook for $7,303.50.

The City of Midland land applies our treated wastewater at the Plant Farm. Kevin Cook, our farming services contractor, is working to get all fields back in shape after years of neglect. Our contract with Mr. Cook specifies that the City purchase herbicides to assist in crop development. The type and agronomic cropping rate of all crops planted must be in accordance with the Crop Management Plan which details out both spring and fall plantings. Each crop type requires different herbicides, so a variety of the different types of herbicide is required.

This purchase will be for one cropping year. This is a regularly occurring budgeted expense each year.

Project funding will be paid for from the Water Reclamation Facility budget. Staff recommendation is to award the contract in the amount of $ 134,691.00 for FY 2024.

**RESOLUTION NO. _____**

**RESOLUTION AUTHORIZING THE PURCHASE OF HERBICIDE FOR THE PLANT FARM FROM HELENA AGRI-ENTERPRISES, LLC OF STANTON, TEXAS, AT A TOTAL COST OF $134,691.00**

**WHEREAS**, the City of Midland issued a request for competitive bids for the purchase of herbicide for the Plant Farm; and

**WHEREAS,** Bid No. 24000004 was opened on September 20, 2023, with the lowest and/or most advantageous bid being submitted by Helena Agri-Enterprises, LLC, of Stanton, Texas, at a total cost of $134,691.00, as shown on the bid detail sheet attached hereto as Exhibit "A" and incorporated herein for all purposes; and

**WHEREAS,** the City Council finds the fees proposed by Helena Agri-Enterprises, LLC for the purchase of said herbicide for the Plant Farm to be fair and reasonable; and

**WHEREAS,** the City Council finds it to be in the public interest to authorize the purchase of said herbicide from Helena Agri-Enterprises, LLC;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the City Manager hereby authorized and directed to purchase herbicide for the Plant Farm from Helena Agri-Enterprises, LLC at a total cost of $134,691.00.

**SECTION TWO.** That the City Comptroller is hereby authorized and directed to pay Helena Agri-Enterprises, LLC from funds available in the Water and Sewer operating budget upon receipt of proper invoices or statements approved by the City Manager.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

_____
Carl Craigo, Utilities Director

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

# City of Midland - Bid Tabulation

| | | | | | | |
|---|---|---|---|---|---|---|
| **BID #** 24000004<br>**Annual Supply of Herbicide for Plant Farm**<br>**OPENED** September 20, 2023 | | | HELENA AGRI ENTERPRISES LLC<br>100 SOUTH SAINT PETER<br>STANTON, TX 79782<br>432-756-2888<br>WAGNERW@HELENAAGRI.COM | | PRO CHEM SALES<br>5524 132ND ST<br>LUBBOCK, TX 79424<br>806-748-9000<br>MICHAEL@PROCHEMSALES.COM | |
| ITEM | QTY | DESCRIPTION | COST EACH | TOTAL | COST EACH | TOTAL |
| 1 | 1000 | Xtendamax | $72.00 | $72,000.00 | NO BID | NO BID |
| | Gal | Brand Name: | XTENDIMAX | | | |
| | | Package Qty: | Bulk | | | |
| 2 | 275 | Smoke | $45.50 | $12,512.50 | $51.26 | $14,096.50 |
| | Gal | Brand Name: | SMOKE (HELENA) | | Smoke | |
| | | Package Qty: | 2X2.5 | | 2.5 GALLONS | |
| 3 | 1750 | Roundup Powermax (bulk) | $24.50 | $42,875.00 | $44.84 | $78,477.67 |
| | Gal | Brand Name: | POWERMAX 3 | | RoundUp Promax | |
| | | Package Qty: | Bulk | | 30 gallon | |
| 4 | 45 | Outlook | $162.30 | $7,303.50 | $220.51 | $9,923.04 |
| | Gal | Brand Name: | Outlook | | Outlook | |
| | | Package Qty: | 2X2.5 | | 2.5 gallon | |
| 5 | 1 | Freight | $0.00 | $0.00 | $0.00 | $0.00 |
| **TOTAL PROPOSAL** | | | | **$134,691.00** | | **$102,497.21** |

**Bidding Summary:**

**25** **Bid requests were issued.**

**2** **Bids listed above**

**2** **NO BIDS were received.**

**21** **Bidders did not respond.**

# City Council Meeting

**Item Number:** 13

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Erika Martinez, Manager, Purchasing

**Subject:** RESOLUTION RATIFYING THE EXECUTION OF AN AGREEMENT WITH ONCOR ELECTRIC DELIVERY COMPANY LLC ("ONCOR") FOR THE RELOCATION OF ONCOR'S FACILITIES IN CONNECTION WITH THE EXTENSION OF WEST WADLEY AVENUE AT A COST OF $102,733.01; AND AUTHORIZING PAYMENT (DISTRICT: NONE) (GENERAL SERVICES)

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**Purpose:**

Resolution ratifying the execution of an agreement with Oncor Electric Delivery Company LLC for a Discretionary Service Agreement for the Capital Improvements Program Department.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

Funding is available in the Wadley Ave Extension Phase 1 Project.

**Discussion:**

Staff recommends approving payment to Oncor Electric Delivery Company LLC for a Discretionary Service Agreement for the Capital Improvements Program Department. Please see the attached memo from Bobby Wojciechowski CIP Manager, for additional information.

Therefore, please consider a resolution ratifying the execution of an agreement with Oncor Electric Delivery Company LLC, a Delaware limited liability company for a Discretionary Service Agreement for the cost of $102,733.01.

Morris Williams Jr.

City Manager's Office

***INTEROFFICE MEMORANDUM***

**TO:** Regina Stephenson, Director of General Services

**FROM:** Bobby Wojciechowski, CIP Manager

**SUBJECT:** Oncor Discretionary Service Agreement

**DATE:** 10/25/2023 **COUNCIL MEETING DATE:** 11/14/2023

Please carry a council agenda to obtain approval for us to enter a “Discretionary Fund Agreement” with Oncor for reimbursement for power pole relocation for our Wadley Avenue Roadway Extension project. The agreement will reimburse Oncor for the design and installation of their new power pole construction.

The funding source is from project # 900301-005.

Let me know if you have any questions.

cc: Kerry Koehler, P.E.
Erika Munoz
Natalie Burgard

**RESOLUTION NO. _____**

**RESOLUTION RATIFYING THE EXECUTION OF AN AGREEMENT WITH ONCOR ELECTRIC DELIVERY COMPANY LLC ("ONCOR") FOR THE RELOCATION OF ONCOR'S FACILITIES IN CONNECTION WITH THE EXTENSION OF WEST WADLEY AVENUE AT A COST OF $102,733.01; AND AUTHORIZING PAYMENT**

**WHEREAS**, Oncor Electric Delivery Company LLC ("Oncor") maintains facilities that must be relocated in connection with the extension of West Wadley Avenue; and

**WHEREAS,** an Assistant City Manager executed, on behalf of the City, an agreement with Oncor for the relocation of Oncor's facilities in connection with the extension of West Wadley Avenue (the "Agreement"); and

**WHEREAS,** the City Council finds it to be in the public interest to ratify the execution of the Agreement;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the execution of the Agreement is hereby ratified and approved, a copy of said Agreement being attached hereto as Exhibit "A" and incorporated herein for all purposes.

**SECTION TWO.** That the City Comptroller is hereby authorized and directed to pay Oncor pursuant to the terms of said Agreement in an amount not to exceed $102,733.01 from funds available in the Wadley Ave Extension Phase 1 Project upon receipt of proper invoices or statements approved by the City Manager.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Jose Ortiz, Assistant City Manager

_____
Regina Stephenson, General Services Director

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

**6.3 Agreements and Forms**
Applicable: Entire Certified Service Area
Effective Date: September 21, 2009



# 6.3.5 Discretionary Service Agreement

WR #: 22734966
Transaction ID: 25308

This Discretionary Service Agreement ("Agreement") is made and entered into this 25 day of October, 2023, by Oncor Electric Delivery Company LLC ("Oncor Electric Delivery Company" or "Company"), a Delaware limited liability company and distribution utility, and City of Midland ("Customer"), a Municipality, each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties". In consideration of the mutual covenants set forth herein, the Parties agree as follows:

1. **Discretionary Services to be Provided** -- Company agrees to provide, and Customer agrees to pay for, the following discretionary services in accordance with this Agreement.

Installation of 7 poles, 4 down guys, 1 riser, approximately 260' of 1/0 UGE cable, approximately 260' of 4" conduit with spare, 1 primary splice box, approximately 3,224' of 795 AAC overhead conductor, and overhead facilities such as crossarms, insulators, and fuses along with the removal of 6 poles, 1 riser, approximately 260' of 1/0 UGE cable, and existing overhead facilites such as crossarms, insulators, and fuses, for the relocation of facilities in conflict with W Wadley Ave Extension in TESCO easement.

2. **Nature of Service and Company's Retail Delivery Service Tariff** -- Any discretionary services covered by this Agreement will be provided by Company, and accepted by Customer, in accordance with applicable Public Utility Commission of Texas ("PUCT") Substantive Rules and Company's Tariff for Retail Delivery Service (including the Service Regulations contained therein), as it may from time to time be fixed and approved by the PUCT ("Company's Retail Delivery Tariff"). During the term of this Agreement, Company is entitled to discontinue service, interrupt service, or refuse service initiation requests under this Agreement in accordance with applicable PUCT Substantive Rules and Company's Retail Delivery Tariff. Company's Retail Delivery Tariff is part of this Agreement to the same extent as if fully set out herein. Unless otherwise expressly stated in this Agreement, the terms used herein have the meanings ascribed thereto in Company's Retail Delivery Tariff.

3. **Discretionary Service Charges** -- Charges for any discretionary services covered by this Agreement are determined in accordance with Company's Retail Delivery Tariff. Company and Customer agree to comply with PUCT or court orders concerning discretionary service charges.

4. **Term and Termination** -- This Agreement becomes effective upon acceptance by Customer and continues in effect until Completion of Construction. Termination of this Agreement does not relieve Company or Customer of any obligation accrued or accruing prior to termination.

5. **No Other Obligations** -- This Agreement does not obligate Company to provide, or entitle Customer to receive, any service not expressly provided for herein. Customer is responsible for making the arrangements necessary for it to receive any further services that it may desire from Company or any third party.

6. **Governing Law and Regulatory Authority** -- This Agreement was executed in the State of Texas and must in all respects be governed by, interpreted, construed, and enforced in accordance with the laws thereof. This Agreement is subject to all valid, applicable federal, state, and local laws, ordinances, and rules and regulations of duly constituted regulatory authorities having jurisdiction.

7. **Amendment** -- This Agreement may be amended only upon mutual agreement of the Parties, which amendment will not be effective until reduced to writing and executed by the Parties. But changes to applicable PUCT Substantive Rules and Company's Retail Delivery Tariff are applicable to this Agreement upon their effective date and do not require an amendment of this Agreement.

8. **Entirety of Agreement and Prior Agreements Superseded** -- This Agreement, including all attached Exhibits, which are expressly made a part hereof for all purposes, constitutes the entire agreement and understanding between the Parties with regard to the service(s) expressly provided for in this Agreement. The Parties are not bound by or liable for any statement, representation, promise, inducement, understanding, or undertaking of any kind or nature (whether written or oral) with regard to the subject matter hereof not set forth or provided for herein. This Agreement replaces all prior agreements and undertakings, oral or written, between the Parties with regard to the subject matter hereof, including without limitation N/A, and all such agreements and undertakings are agreed by the Parties to no longer be of any force or effect. It is expressly acknowledged that the Parties may have other agreements covering other services not expressly provided for herein, which agreements are unaffected by this Agreement.

9. **Notices** -- Notices given under this Agreement are deemed to have been duly delivered if hand delivered or sent by United States certified mail, return receipt requested, postage prepaid, to:

(a) If to Company:
Oncor Electric Delivery
777 Main Street
Fort Worth TX 76102
Suit 707

(b) If to Customer:
City of Midland
Jose Ortiz
300 N Loraine St
Midland, Tx 79701 PO Box 1152

The above-listed names, titles, and addresses of either Party may be changed by written notification to the other.

10. **Invoicing and Payment** – Invoices for any discretionary services covered by this Agreement will be mailed by Company to the following address (or such other address directed in writing by Customer), unless Customer is capable of receiving electronic invoicing from Company, in which case Company is entitled to transmit electronic invoices to Customer.

City of Midland
300 N Loraine St
Midland, Tx 79701 PO Box 1152

If Company transmits electronic invoices to Customer, Customer must make payment to Company by electronic funds transfer. Electronic invoicing and payment by electronic funds transfer will be conducted in accordance with Company's standard procedures. Company must receive payment by the due date specified on the invoice. If payment is not received by the Company by the due date shown on the invoice, a late fee will be calculated and added to the unpaid balance until the entire invoice is paid. The late fee will be 5% of the unpaid balance per invoice period.

11. **No Waiver** -- The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered to waive the obligations, rights, or duties imposed upon the Parties.

12. **Taxes** -- All present or future federal, state, municipal, or other lawful taxes (other than federal income taxes) applicable by reason of any service performed by Company, or any compensation paid to Company, hereunder must be paid by Customer.

13. **Headings** -- The descriptive headings of the various articles and sections of this Agreement have been inserted for convenience of reference only and are to be afforded no significance in the interpretation or construction of this Agreement.

14. **Multiple Counterparts** -- This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

15. **Other Terms and Conditions** –
(i) Customer has disclosed to Company all underground facilities owned by Customer or any other party that is not a public utility or governmental entity, that are located within real property owned by Customer. In the event that Customer has failed to do so, or in the event of the existence of such facilities of which Customer has no knowledge, Company, its agents and contractors, shall have no liability, of any nature whatsoever, to Customer, or Customer's agents or assignees, for any actual or consequential damages resulting from damage to such undisclosed or unknown facilities.
(ii)
Customer agrees to pay $102,733.01

IN WITNESS WHEREOF, the Parties have caused this Agreement to be signee by their respective duly authorized representatives.

| Oncor Electric Delivery Company LLC | City of Midland |
|---|---|
| | Customer / Company Name |
| DocuSigned by: Noemi Hernandez E90C8714DCE22473 | DocuSigned by: Jose Ortiz 4E5345EAEED14CB |
| Signature | Signature |
| Noemi Hernandez | Jose Ortiz |
| Printed Name | Printed Name |
| Design Coordinator | Assistant City Manager |
| Title | Title |
| 10/27/2023 \| 5:52:41 AM PDT | 10/26/2023 \| 6:34:35 PM CDT |
| Date | Date |

# 6.3.5 Discretionary Service Agreement

WR #: 22734966
Transaction ID: 25308

This Discretionary Service Agreement ("Agreement") is made and entered into this 25 day of October, 2023, by Oncor Electric Delivery Company LLC ("Oncor Electric Delivery Company" or "Company"), a Delaware limited liability company and distribution utility, and City of Midland ("Customer"), a Municipality, each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties". In consideration of the mutual covenants set forth herein, the Parties agree as follows:

1. **Discretionary Services to be Provided** -- Company agrees to provide, and Customer agrees to pay for, the following discretionary services in accordance with this Agreement.

Installation of 7 poles, 4 down guys, 1 riser, approximately 260' of 1/0 UGE cable, approximately 260' of 4" conduit with spare, 1 primary splice box, approximately 3,224' of 795 AAC overhead conductor, and overhead facilities such as crossarms, insulators, and fuses along with the removal of 6 poles, 1 riser, approximately 260' of 1/0 UGE cable, and existing overhead facilites such as crossarms, insulators, and fuses, for the relocation of facilities in conflict with W Wadley Ave Extension in TESCO easement.

2. **Nature of Service and Company's Retail Delivery Service Tariff** -- Any discretionary services covered by this Agreement will be provided by Company, and accepted by Customer, in accordance with applicable Public Utility Commission of Texas ("PUCT") Substantive Rules and Company's Tariff for Retail Delivery Service (including the Service Regulations contained therein), as it may from time to time be fixed and approved by the PUCT ("Company's Retail Delivery Tariff"). During the term of this Agreement, Company is entitled to discontinue service, interrupt service, or refuse service initiation requests under this Agreement in accordance with applicable PUCT Substantive Rules and Company's Retail Delivery Tariff. Company's Retail Delivery Tariff is part of this Agreement to the same extent as if fully set out herein. Unless otherwise expressly stated in this Agreement, the terms used herein have the meanings ascribed thereto in Company's Retail Delivery Tariff.

3. **Discretionary Service Charges** -- Charges for any discretionary services covered by this Agreement are determined in accordance with Company's Retail Delivery Tariff. Company and Customer agree to comply with PUCT or court orders concerning discretionary service charges.

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5. **No Other Obligations** -- This Agreement does not obligate Company to provide, or entitle Customer to receive, any service not expressly provided for herein. Customer is responsible for making the arrangements necessary for it to receive any further services that it may desire from Company or any third party.

6. **Governing Law and Regulatory Authority** -- This Agreement was executed in the State of Texas and must in all respects be governed by, interpreted, construed, and enforced in accordance with the laws thereof. This Agreement is subject to all valid, applicable federal, state, and local laws, ordinances, and rules and regulations of duly constituted regulatory authorities having jurisdiction.

7. **Amendment** -- This Agreement may be amended only upon mutual agreement of the Parties, which amendment will not be effective until reduced to writing and executed by the Parties. But changes to applicable PUCT Substantive Rules and Company's Retail Delivery Tariff are applicable to this Agreement upon their effective date and do not require an amendment of this Agreement.

8. **Entirety of Agreement and Prior Agreements Superseded** -- This Agreement, including all attached Exhibits, which are expressly made a part hereof for all purposes, constitutes the entire agreement and understanding between the Parties with regard to the service(s) expressly provided for in this Agreement. The Parties are not bound by or liable for any statement, representation, promise, inducement, understanding, or undertaking of any kind or nature (whether written or oral) with regard to the subject matter hereof not set forth or provided for herein. This Agreement replaces all prior agreements and undertakings, oral or written, between the Parties with regard to the subject matter hereof, including without limitation N/A, and all such agreements and undertakings are agreed by the Parties to no longer be of any force or effect. It is expressly acknowledged that the Parties may have other agreements covering other services not expressly provided for herein, which agreements are unaffected by this Agreement.

9. **Notices** -- Notices given under this Agreement are deemed to have been duly delivered if hand delivered or sent by United States certified mail, return receipt requested, postage prepaid, to:

(a) If to Company:
Oncor Electric Delivery
777 Main Street
Fort Worth TX 76102
Suit 707

(b) If to Customer:
City of Midland
Jose Ortiz
300 N Loraine St
Midland, Tx 79701 PO Box 1152

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10. **Invoicing and Payment** – Invoices for any discretionary services covered by this Agreement will be mailed by Company to the following address (or such other address directed in writing by Customer), unless Customer is capable of receiving electronic invoicing from Company, in which case Company is entitled to transmit electronic invoices to Customer.

City of Midland
300 N Loraine St
Midland, Tx 79701 PO Box 1152

If Company transmits electronic invoices to Customer, Customer must make payment to Company by electronic funds transfer. Electronic invoicing and payment by electronic funds transfer will be conducted in accordance with Company's standard procedures. Company must receive payment by the due date specified on the invoice. If payment is not received by the Company by the due date shown on the invoice, a late fee will be calculated and added to the unpaid balance until the entire invoice is paid. The late fee will be 5% of the unpaid balance per invoice period.

11. **No Waiver** -- The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered to waive the obligations, rights, or duties imposed upon the Parties.

12. **Taxes** -- All present or future federal, state, municipal, or other lawful taxes (other than federal income taxes) applicable by reason of any service performed by Company, or any compensation paid to Company, hereunder must be paid by Customer.

13. **Headings** -- The descriptive headings of the various articles and sections of this Agreement have been inserted for convenience of reference only and are to be afforded no significance in the interpretation or construction of this Agreement.

14. **Multiple Counterparts** -- This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

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(i) Customer has disclosed to Company all underground facilities owned by Customer or any other party that is not a public utility or governmental entity, that are located within real property owned by Customer. In the event that Customer has failed to do so, or in the event of the existence of such facilities of which Customer has no knowledge, Company, its agents and contractors, shall have no liability, of any nature whatsoever, to Customer, or Customer's agents or assignees, for any actual or consequential damages resulting from damage to such undisclosed or unknown facilities.
(ii)
Customer agrees to pay $102,733.01

IN WITNESS WHEREOF, the Parties have caused this Agreement to be signee by their respective duly authorized representatives.

Oncor Electric Delivery Company LLC

DocuSigned by:
Noemi Hernandez
E0C6714DEE2473...
Signature
Noemi Hernandez
Printed Name
Design Coordinator
Title
10/27/2023 | 5:52:41 AM PDT
Date

City of Midland
Customer / Company Name

DocuSigned by:
Jose Ortiz
4E5345EAEED14CB...
Signature
Jose Ortiz
Printed Name
Assistant City Manager
Title
10/26/2023 | 6:34:35 PM CDT
Date

# City Council Meeting

**Item Number:** 14

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Erika Martinez, Manager, Purchasing

**Subject:** RESOLUTION AUTHORIZING THE PURCHASE OF AN ESTIMATED ANNUAL SUPPLY OF CHEMICALS FOR THE WATER RECLAMATION FACILITY FOR FISCAL YEAR 2024 FROM MULTIPLE BIDDERS, FOR A TOTAL COST OF $397,335.00 (DISTRICT: NONE) (GENERAL SERVICES)

---

**Purpose:**

Resolution approving the purchase of an estimated annual supply of Polymer, Copper Sulfate, and Liquid Sodium Hypochlorite for the Water Reclamation Facility for Fiscal Year 2024 for the Utilities Department.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

Funding is available in the Water and Sewer operating budget.

**Discussion:**

The City Manager approved specifications and authorized advertisement for bids for an estimated annual supply of Polymer, Copper Sulfate, and Liquid Sodium Hypochlorite for Water Reclamation Facility. Eighteen (18) bid requests were issued. We received four (4) bids. Staff recommends awarding each chemical to the respective low, most advantageous or sole bidders as shown in the table below. There were no bids for item 4 for the annual supply for gypsum and will be purchased as needed during the year. Please see the attached memo from Melissa Looney, Water Reclamation Facility Superintendent, for more information.

Therefore, please consider a resolution awarding an estimated annual supply of chemicals for Water Reclamation Facility as shown in table below:

| Items | Bidders | Cost |
|---|---|---|
| **1** | Polydyne Inc.  Of Riceboro, GA | $212,750.00 |
| **2** | Vineera Chemicals LLC of Katy, TX | $53,900.00 |
| **2A & 2B** | Chemrite, Inc of Buford, GA | $110,005.00 |
| **3** | Univar Solutions USA Inc of Dover, FL | $20,680.00 |
| **4** | Re-bid as needed | |
| | | |
| | Total estimated cost for Fiscal Year 2024 | **$397,335.00** |

Morris William Jr.

City Manager's Office

***INTEROFFICE MEMORANDUM***

**TO:** **Regina Stephenson, General Services Director, Erika Martinez, Purchasing Manager**

**FROM:** **Melissa Looney, Superintendent**

**SUBJECT:** **Recommend Award for Annual Chemical Supply for WRF**

**DATE:** **October 3, 2023**

Consider a resolution approving the award of purchases in the amount of $ 20,680.00 to the bidder Univar Solutions USA Inc. for the purchase of 4400 gallons of 12.5% Liquid sodium hypochlorite delivered in 55-gallon drums as and when needed to the City of Midland. All items delivered and unloaded FOB to the City of Midland Water Reclamation facility.

Consider a resolution approving the award of purchases in the amount of $ 212,750.00 to the bidder Polydyne Inc. for the purchase of 115,000 pounds of Polymer Inc. delivered in 250 gallons totes as and when needed to the City of Midland. All items delivered and unloaded FOB to the City of Midland Water Reclamation Facility.

Consider a resolution approving the award of a purchase in the amount of $ 53,900.00 to the bidder Vineera chemicals LLC for the purchase of 24,500 pounds of Copper Sulfate which will be delivered as and when needed to City of Midland Water Reclamation Facility. All items delivered and unloaded FOB to the City of Midland Water Reclamation Facility.

Consider a resolution approving the award of a purchase in the amount of $50,470.00 to the bidder Chemrite, inc for the purchase of 24,500 pounds of Copper Sulfate (F30) which will be delivered as and when needed to City of Midland Water Reclamation Facility. All items delivered and unloaded FOB to the City of Midland Water Reclamation Facility.

Consider a resolution approving the award of a purchase in the amount of $ 59,535.00 to the bidder Chemrite inc, for the purchase of 24,500 pounds of Copper Sulfate (Medium Crystal) which will be delivered as and when needed to City of Midland Water Reclamation Facility. All items delivered and unloaded FOB to the City of Midland Water Reclamation Facility.

The City of Midland uses Sodium Hypochlorite to disinfect reuse water for cleaning purposes. The City of Midland uses Polymer to dewater sludges which is then taken and disposed of at landfill. The City of Midland uses copper sulfate at the Sprayberry ponds to control biologic growth and for algae control in ponds at Sprayberry. The City of Midland uses copper sulfate(F30) to keep algae from growing in

ponds at Sprayberry. The City of Midland uses copper sulfate (medium crystal) to assist with water quality at the Sprayberry ponds.

As for the no bid on the Gypsum, it is not needed at this time so we will wait until it is needed and then go out for bid at that time.

This purchase will cover all fiscal year 2024. This is a regularly occurring budgeted expense each year.

Project funding will be paid from the Water Reclamation Facility Operating Fund. Staff recommendation is to award the contract in the amount of $20,680.00 for Liquid Sodium Hypochlorite, $212,750.00 for Polymer $53,900.00 for Copper Sulfate. $50,470 for copper sulfate (F30) and $59,535.00 for copper sulfate (medium crystal)

**RESOLUTION NO. _____**

**RESOLUTION AUTHORIZING THE PURCHASE OF AN ESTIMATED ANNUAL SUPPLY OF CHEMICALS FOR THE WATER RECLAMATION FACILITY FOR FISCAL YEAR 2024 FROM MULTIPLE BIDDERS, FOR A TOTAL COST OF $397,335.00**

**WHEREAS**, the City Manager approved the specifications and authorized the advertisement for bids for an estimated annual supply of Polymer, Copper Sulfate, Liquid Sodium Hypochlorite, and Gypsum for the Water Reclamation Facility for fiscal year 2024; and

**WHEREAS,** Bid No. 24000002 was opened on August 30, 2023 with the lowest and/or most advantageous bids being submitted as follows and as shown on the bid tabulation attached hereto as Exhibit "A" and incorporated herein for all legal purposes:

| Items | Bidders | Cost |
|---|---|---|
| 1 | Polydyne Inc. | $212,750.00 |
| 2 | Vineera Chemicals, LLC | $53,900.00 |
| 2A and 2B | Chemrite, Inc. | $110,005.00 |
| 3 | Univar Solutions USA Inc. | $20,680.00 |
| 4 | No bids | $0.00 |

**WHEREAS**, the Council finds the price proposed by the bidders as shown above to be fair and reasonable; and

**WHEREAS**, the City Council finds it to be in the public interest to authorize the purchase of chemicals for the Water Reclamation Facility from Polydyne Inc., Vineera Chemicals, LLC, Chemrite, Inc., and Univar Solutions USA Inc.;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the City Manager is hereby authorized and directed to purchase chemicals for the Water Reclamation Facility from Polydyne Inc., Vineera Chemicals, LLC, Chemrite, Inc., and Univar Solutions USA Inc. for a total cost of $397,335.00.

**SECTION TWO.** That upon receipt of proper invoice or statement approved by the City Manager, the City Comptroller is hereby authorized and directed to pay for said

chemicals for the Water Reclamation Facility out of funds available in the Water and Sewer operating budget.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

APPROVED ONLY AS TO FORM:

_____

John Ohnemiller, City Attorney

# City of Midland - Bid Tabulation

| BID # 24000002<br>**Annual Chemicals for Water Reclaimation Facility**<br><br>**OPENED** August 30, 2023 | | | Chemrite, Inc.<br>5202 Belle Wood Ct. Ste 104<br>Buford, GA 30518<br>770-271-5576<br>aaron@chemrite.com | | Polydyne Inc.<br>1 Chemical Plant Road<br>Riceboro, GA 31323<br>800-848-7659<br>tkelso@polydyneinc.com | | Univar Solutions USA Inc.<br>12720 E US Hwy 92 trl:427<br>Dover, FL 33527<br>206-653-5075<br>roise.holidayhenry@univarsolutions.com | | Vineera Chemicals LLC<br>24044 Cinco Village Center<br>Katy TX 77496<br>281-962-7770<br>sales@vineera.com | |
|---|---|---|---|---|---|---|---|---|---|---|
| ITEM | QTY | DESCRIPTION | COST EACH | TOTAL | COST EACH | TOTAL | COST EACH | TOTAL | COST EACH | TOTAL |
| | | | | | | | | | | |
| 1 | 115,000 | Annual Supply of Polymer | NA | NA | $1.85 | $212,750.00 | NA | NA | NA | NA |
| | lbs | | | | | | | | | |
| | | | | | | | | | | |
| 2 | 24,500 | Annual Supply of Copper Sulfate | NA | NA | NA | NA | NA | NA | $2.20 | $53,900.00 |
| | lbs | | | | | | | | | |
| | (490 50 lb bags) | | | | | | | | | |
| | | | | | | | | | | |
| 2A | 24,500 | Annual Supply of Copper Sulfate (F30) | $2.06 | $50,470.00 | NA | NA | NA | NA | NA | NA |
| | lbs | | | | | | | | | |
| | (490 50 lb bags) | | | | | | | | | |
| | | | | | | | | | | |
| 2B | 24,500 | Annual Supply of Copper Sulfate (Medium Crystal) | $2.43 | $59,535.00 | NA | NA | NA | NA | NA | NA |
| | lbs | | | | | | | | | |
| | (490 50 lb bags) | | | | | | | | | |
| | | | | | | | | | | |
| 3 | 4,400 | Annual Supply of Liquid Sodium Hypochlorite | NA | NA | NA | NA | $4.700 | $20,680.00 | NA | NA |
| | gallons | | | | | | | | | |
| | | | | | | | | | | |
| 4 | 904 | Annual Supply of Gypsum | NA | NA | NA | NA | NA | NA | NA | NA |
| | Ton | | | | | | | | | |
| | | | | | | | | | | |
| | | Delivery: | 5-7 days ARO | | 7-10 business days | | 5 business days | | 3-5 business days | |
| | | | **Total 1:** | $50,470.00 | | | | | | |
| | | **TOTALS:** | **Total 2:** | $59,535.00 | | $212,750.00 | | $20,680.00 | | $53,900.00 |

**Bidding Summary:**

**18 Bid requests were issued.**

**4 Bids listed above**

**0 NO BIDS were received.**

**14 Bidders did not respond.**
**Incomplete Proposals**

# City Council Meeting

**Item Number:** 15

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Erika Martinez, Manager, Purchasing

**Subject:** RESOLUTION AUTHORIZING THE EXECUTION OF A PROFESSIONAL SERVICES AGREEMENT WITH AVENU INSIGHTS AND ANALYTICS, LLC OF CENTREVILLE, VIRGINIA, FOR ACCOUNTING SERVICES CONCERNING SALES AND USE TAX ADMINISTRATION, HOTEL AUDITING AND FRANCHISE FEE AUDITING; AND AUTHORIZING PAYMENT (DISTRICT: NONE) (GENERAL SERVICES)

---

**Purpose:**

Resolution authorizing the execution of a professional service agreement with Avenu Insights & Analytics, LLC for accounting services concerning Sales Use Tax Administration, Hotel Auditing and Franchise Fee Auditing for the Finance Department.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

Funds are available in the General Fund and Hotel Motel Fund operating budgets.

**Discussion:**

Staff recommends authorizing the execution of a professional service agreement with Avenu Insights & Analytics, LLC for accounting services concerning Sales Use Tax Administration, Hotel Auditing and Franchise Fee Auditing. Please see the attached memo from Christy Weakland, Finance Director, for additional information.

Therefore, please consider a resolution authorizing the execution of a professional services agreement for with Avenu Insights & Analytics, LLC for accounting services concerning Sales Use Tax Administration, Hotel Auditing and Franchise Fee Auditing for the Finance Department.

Morris Williams Jr.

City Manager's Office

:

**MEETING DATE:** **November 14, 2023**

**TO:** **Erika Munoz, Purchasing Manager**

**FROM:** **Christy Weakland, Director of Finance**

**SUBJECT:** **AvenuInsights Contract**

---

Please propose a council item for a contract with AvenuInsights ("Avenu") for professional services related to franchise fees, sales tax and hotel motel tax audits. It has been requested by City Management to pursue potential missed revenue through audits of sales tax, franchise fees and hotel motel taxes.

Avenu's Sales and Use Tax Compliance Review Service is designed to assist in enhancing sales and use tax revenues by detecting, documenting, and correcting sales and use tax errors thereby producing previously unrealized revenue.

Avenu's Local Occupancy Tax Audit Service is intended to assist in maximizing tax revenue it is entitled to through an examination of records and education of the lodging providers to ensure the appropriate collection and remittance of the occupancy tax.

Avenue's Franchise Fee Compliance Reviews are agreed-upon procedures to review the franchise fee payments made to the City from the franchisees.

**RESOLUTION NO. _____**

**RESOLUTION AUTHORIZING THE EXECUTION OF A PROFESSIONAL SERVICES AGREEMENT WITH AVENU INSIGHTS AND ANALYTICS, LLC OF CENTREVILLE, VIRGINIA, FOR ACCOUNTING SERVICES CONCERNING SALES AND USE TAX ADMINISTRATION, HOTEL AUDITING AND FRANCHISE FEE AUDITING; AND AUTHORIZING PAYMENT**

**WHEREAS**, Avenu Insights and Analytics, LLC of Centreville, Virginia (the "Firm") has agreed to perform accounting services concerning sales and use tax administration, hotel auditing and franchise fee auditing (the "Services"); and

**WHEREAS**, the City Council finds that the Firm is qualified to perform said Services; and

**WHEREAS**, the City Council finds that the fees proposed by the Firm are consistent with and not higher than the recommended practices and fees published by applicable professional associations and do not exceed any maximum provided by law; and

**WHEREAS**, the City Council finds that the Firm provides the Services for a fair and reasonable price; and

**WHEREAS**, the City Council finds it to be in the public interest to approve the selection of the Firm as the most highly qualified provider of said Services based on demonstrated competence, knowledge, and qualifications and on the reasonableness of the proposed fees for the Services;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the selection of the Firm to perform the Services is hereby approved.

**SECTION TWO.** That the City Manager and City Secretary are hereby authorized and directed to execute and attest, respectively, on behalf of the City of Midland, a professional services agreement with the Firm for said Services, said professional services agreement to be in a form substantially similar to that attached hereto as Exhibit "A".

**SECTION THREE.** That the City Comptroller is hereby authorized and directed to pay the Firm pursuant to the terms of said professional services agreement from funds available in the appropriate account(s) upon receipt of proper invoices or statements approved by the City Manager.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

_____
Christy Weakland, Director of Finance

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

# EXHIBIT "A"

## PROFESSIONAL SERVICES AGREEMENT
## 24000284

**THIS AGREEMENT** is made and effective the 15th day of November 2023, by and between the CITY OF MIDLAND, TEXAS ("*CITY*"), a home-rule municipal corporation, and Avenu Insights & Analytics, LLC ("*COMPANY*"). CITY and COMPANY are at times individually referred to as a "*Party*" and collectively referred to as the "*Parties*."

### ARTICLE I. PURPOSE

The purpose of this Agreement is to state the terms and conditions under which COMPANY shall perform accounting services concerning Sales Use Tax Administration, Hotel Auditing and Franchise Fee Auditing (the "*Services*") for CITY. The Services are more specifically set forth in **Exhibit A**, which is attached hereto and incorporated herein for all purposes.

### ARTICLE II. SERVICES TO BE PERFORMED

COMPANY shall provide the Services in a manner consistent with the same level of skill and care as other professionals that perform similar services for similar projects in approximately the same region and at approximately the same point in time. COMPANY represents that any employee who performs the Services shall be fully qualified and competent to perform the Services.

### ARTICLE III. FINANCIAL CONSIDERATIONS

CITY agrees to pay COMPANY according to the schedule set forth in **Exhibit A** upon presentation of a monthly invoice. The monthly invoice shall set forth all service fees for the month and those expenses described in **Exhibit B** that COMPANY incurs during the previous period which COMPANY has agreed to in **Exhibit B**. All additional and/or reimbursable expenses must be approved by the City Manager prior to incurring such expenses.

Within thirty (30) days of the date COMPANY's invoice is received by CITY, CITY shall pay the full amount of such invoice; provided, however, that if CITY objects to any portion of an invoice, CITY shall notify COMPANY of CITY's objection and the grounds therefor within fifteen (15) days of the date of receipt of the invoice, and the Parties shall immediately make every effort to settle the disputed portion of the invoice. Notwithstanding the foregoing, CITY shall pay

every portion of the invoice that is not in dispute within the 30-day period for payment.

## ARTICLE IV. TERM

The Initial term of this Agreement shall be one (1) year. CITY shall have the right to extend the term of this Agreement for two (2) additional one (1) year periods by providing written notice to COMPANY of CITY's desire to extend the Contract not later than sixty (60) days prior to the end of the then current term. Extensions of this Contract will be based on acceptable performance as long as the price does not exceed administrative parameters.

## ARTICLE V. TERMINATION AT WILL

CITY may terminate this Agreement at will, for any or no reason, upon giving COMPANY at least one hundred eighty (180) days' written notice. The Parties understand and agree that it is in CITY'S sole and absolute discretion to cancel this Agreement during the term set forth in Article IV without penalty to CITY. COMPANY has no expectation and has received no guarantees that this Agreement will not be terminated during the Agreement's term. The Parties have bargained for the flexibility of terminating this Agreement upon tender of the requisite notice at any time during this Agreement's term. All work and services under the Agreement shall be suspended upon termination of the Agreement becoming effective.

Effect of Termination: Notwithstanding non-renewal or termination of this Agreement, CITY shall be obligated to pay COMPANY for services performed through the effective date of termination for which COMPANY has not been previously paid. In addition, because the services performed by COMPANY prior to termination or non-renewal of this Agreement may result in the CITY's receipt of revenue after termination which are subject to COMPANY's fee, the CITY shall remain obligated after termination or non-renewal to provide to COMPANY such information as is necessary for COMPANY to calculate compensation due as a result of the receipt of revenue by the CITY. Termination of this Agreement for any reason will not affect any liabilities or obligations of either party arising before termination or out of events causing termination and will not affect any damages or other remedies to which a party may be entitled under this Agreement, at law, or in equity, arising from any breach or default.

## ARTICLE VI. ASSIGNMENT

COMPANY shall not, either directly or indirectly, assign all or any part of this Agreement, or any interest, right or privilege herein, without obtaining CITY's prior written consent, which consent shall not be unreasonably withheld.

## ARTICLE VII. OWNERSHIP AND CONFIDENTIALITY OF DOCUMENTS AND OTHER WORK PRODUCT

All reports, information and other data ("*Instruments of Service*") given to, prepared or assembled by COMPANY under this Agreement, and any other related document or item shall become the sole and exclusive property of CITY. The Instruments of Service shall be promptly delivered, without restriction, to CITY and such other persons or entities as CITY may designate; provided, however, that COMPANY may make copies of the Instruments of Service for its files.

## ARTICLE VIII. INDEPENDENT CONTRACTOR

COMPANY shall perform the Services as an independent contractor and not as an officer, agent, servant or employee of CITY. COMPANY shall have exclusive control of and the exclusive right to control the details of the Services and all persons performing the same. COMPANY shall be solely responsible for the acts and omissions of its officers, agents, employees, contractors and subcontractors. The Parties acknowledge and agree that the doctrine of *respondeat superior* shall not apply as between CITY and COMPANY, its officers, agents, employees, contractors and subcontractors. Nothing in this Agreement shall be construed as creating a partnership or joint enterprise between CITY and COMPANY. No person performing the Services shall be considered an officer, agent, servant or employee of CITY. Further, it is specifically understood and agreed that nothing in this Agreement is intended nor shall be construed as creating a "Community of Pecuniary Interest" or "An Equal Right of Control" that would give rise to vicarious liability. COMPANY is an independent contractor under this Agreement and shall assume all rights, obligations, and liabilities applicable to it as an independent contractor. CITY does not have the power to direct the order in which the services are performed. CITY shall not have the right to control the means, methods or details of COMPANY'S work. COMPANY shall assume exclusive responsibility for performing the Services, and is entirely free to perorm the Services in its own way.

## ARTICLE IX. INSURANCE

During the term of this Agreement, COMPANY shall maintain and keep in full force and effect insurance in the following types and minimum amounts with companies authorized to do business in the State of Texas:

| | |
|---|---|
| Commercial General Liability (including Contractual liability): | |
| -Personal Injury: | $1,000,000.00 per person |
| | $1,000,000.00 per occurrence |
| -Property Damage: | $500,000.00 per occurrence |
| Business Automobile Liability: | $250,000.00 combined single limit - Personal Injury and Property Damage |
| Workers' Compensation: | Statutory limits |
| Employers' Liability: | $500,000.00 per accident or occurrence |

The Commercial General Liability policy shall be on a per project aggregate, including completed operations, and shall be on a claims-occurred basis. This policy shall name CITY as an additional insured and waive subrogation in favor of CITY.

The Business Automobile Liability policy shall cover any vehicle for bodily injury and property damage, including owned vehicles, hired and non-city vehicles, and employee non-ownership, and the amount of such policy shall be a minimum of $250,000.00 covering any vehicle used for the execution of the Services. This policy shall name CITY as an additional insured and waive subrogation in favor of CITY.

The Workers' Compensation policy shall inure to the benefit of employees injured during the course and scope of their employment by COMPANY pursuant to this Agreement. The Workers' Compensation policy shall waive all rights of subrogation in favor of CITY.

All insurance policies required by this Agreement shall (i) provide for a waiver of subrogation in favor of CITY, and (ii) name CITY as an additional insured on a claims-occurred basis (except for the Workers' Compensation policy). Prior to any reduction or termination of the insurance policies referenced herein, COMPANY shall ensure that its insurance provider submits written notice to CITY no later than thirty (30) days prior to the reduction or termination of such coverage.

COMPANY shall contractually require all contractors, subcontractors, and sub-subcontractors that perform the Services to obtain insurance coverage that meets or exceeds the

policy requirements and minimum amounts specified herein. All contractors, subcontractors, and sub-subcontractors shall obtain insurance policies that provide blanket waivers of subrogation in favor of the City of Midland and that name the City of Midland as an additional insured on a claims-occurred basis (except Workers' Compensation).

Prior to the execution of the Agreement, COMPANY shall provide one or more certificates of insurance specifically stating that requirements of this Article have been met, which shall be subject to the approval of CITY. CITY shall not be required to provide any insurance pursuant to this Agreement.

By executing this Agreement, COMPANY certifies that the certificate of insurance provided pursuant to this Article complies with the requirements of Chapter 1811 of the Texas Insurance Code. COMPANY shall not use an unapproved certificate of insurance or insert inappropriate language on a certificate. Compliance with state law and this Agreement is the sole and exclusive responsibility of COMPANY.

Notwithstanding any contrary provision contained herein, the City Manager, in his/her sole and absolute discretion, modify the insurance requirements contained in this Article.

## ARTICLE X. ATTORNEY FEES

**BY EXECUTING THIS AGREEMENT, COMPANY AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST CITY, REGARDING THE AWARD OF ATTORNEY FEES, WHICH ARE IN ANY WAY RELATED TO THIS AGREEMENT OR THE CONSTRUCTION, INTERPRETATION, OR BREACH OF THIS AGREEMENT. COMPANY SPECIFICALLY AGREES THAT IF COMPANY BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS AGREEMENT, THE CONSTRUCTION, INTERPRETATION, VALIDITY OR BREACH OF THIS AGREEMENT (INCLUDING, BUT NOT LIMITED TO, ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET SEQ., AS AMENDED) OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE), COMPANY AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY FEES TO WHICH COMPANY MIGHT**

**OTHERWISE BE ENTITLED.**

**COMPANY AGREES THAT THIS IS A VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY-EXISTING KNOWN RIGHT. COMPANY ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THIS AGREEMENT. COMPANY FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN CITY AND COMPANY. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF GOVERNMENTAL IMMUNITY.**

**COMPANY IS RELYING ON ITS OWN JUDGMENT AND HAD THE OPPORTUNITY TO DISCUSS THIS AGREEMENT WITH COMPETENT LEGAL COUNSEL PRIOR TO ITS EXECUTION. THE PROVISIONS OF THIS ARTICLE SHALL SURVIVE THE TERMINATION OF THIS AGREEMENT.**

## ARTICLE XI. GOVERNMENTAL IMMUNITY

By executing this Agreement, CITY is not waiving its right of governmental immunity. CITY is retaining its immunity from suit. CITY is not granting consent to be sued by legislative resolution or action. **THERE IS NO WAIVER OF GOVERNMENTAL IMMUNITY.**

## ARTICLE XII. NO THIRD-PARTY BENEFICIARY

CITY's approval of this Agreement does not create a third-party beneficiary. There is no third-party beneficiary to this Agreement. No person or entity who is not a party to this Agreement shall have any third-party beneficiary or other rights hereunder.

## ARTICLE XIII. INTENTIONALLY OMITTED

## ARTICLE XIV. GENERAL PROVISIONS

A. Waiver. No waiver by CITY of a breach of any covenant, condition, or restriction of this Agreement shall be construed or held to be a waiver of any succeeding or preceding breach of the same or any other covenant, condition, or restriction contained in this Agreement.

B. Governing Law and Venue. The laws of the State of Texas shall govern, construe and enforce all rights and duties of the Parties, including, but not limited to, tort claims and any contractual claims or disputes arising from or relating in any way to the subject matter of this Agreement, without regard to conflict of laws and rules that would direct application of the laws

of another jurisdiction. All performance and payment made pursuant to this Agreement shall be deemed to have occurred in Midland County, Texas. The obligations and undertakings of the Parties shall be deemed to have occurred in Midland County, Texas. Exclusive venue for any claim, suit, or other action arising from or connected in any way to this Agreement shall be in Midland County, Texas.

C. Notice. Any notice or demand made regarding this Agreement shall be made in writing and delivered, either in person or by certified or registered mail, at the addresses provided below. Notice by mail shall be complete upon deposit of the paper, postage prepaid, in a post office or official depository under the care and custody of the United States Postal Service.

If to CITY: City Manager's Office
P.O. Box 1152
Midland, Texas 79702

If to COMPANY: Avenu Insights & Analytics, LLC
5860 Trinity Parkway, Suite 120
Centreville, VA 20120

The parties hereto may change the above-designated addresses by giving notice pursuant to the terms of this Section.

D. Severability. If one or more of the provisions contained in this Agreement are held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and this Agreement shall be construed as if the invalid, illegal, or unenforceable provision were never contained herein.

E. Use of Language. Words in the singular shall be held to include the plural, unless the context otherwise requires.

F. Amendments, Modifications, Alterations. No amendment, modification, or alteration of this Agreement shall be binding unless such is evidenced in writing, dated subsequent to the date of this Agreement, and duly executed by the Parties.

G. Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be deemed as original, and all of which shall constitute one and the same instrument.

H. Federal Wage Requirements. If applicable, the Davis-Bacon Act, 29 CFR 5.5, and any related acts or regulations are hereby incorporated by reference and made a part of this Agreement, and all terms and requirements under said statutes and regulations are made terms and conditions

of this Agreement, to which the Parties have agreed to be bound.

I. Notice of Alleged Breach; Statutory Prerequisites. As a condition precedent to filing suit for alleged damages incurred by an alleged breach of an express or implied provision of this Agreement, COMPANY or its legal representative shall give the City Manager, or any other reasonable official of CITY, written notice (consisting of one (1) original and seven (7) copies of such notice attached to a copy of this Agreement) of such duly-verified damages within one hundred fifty (150) days after the same has been sustained. The discovery rule does not apply to the giving of such notice. The notice shall include when, where, and how the damages occurred, the apparent extent thereof, the amount of damages sustained, the amount for which COMPANY will settle, the physical and mailing addresses of COMPANY at the time and date the claim was presented, the physical and mailing addresses of COMPANY for the six (6) months immediately preceding the occurrence of such damages, and the names and addresses of the witnesses upon whom COMPANY relies to establish its claim. COMPANY's failure to so notify the City Manager within the time and manner provided herein shall exonerate, excuse and except CITY from any liability whatsoever. CITY is under no obligation to provide notice to COMPANY that COMPANY'S notice is insufficient. CITY reserves the right to request additional information regarding the claim. Said additional information shall be supplied within thirty (30) days after COMPANY's receipt of such notice.

The statutory prerequisites outlined herein constitute jurisdictional requirements pursuant to Section 271.154 of the Texas Local Government Code and Section 311.034 of the Texas Government Code. Notwithstanding any contrary provision contained herein, COMPANY's failure to comply with the requirements herein shall perpetually bar COMPANY's claim for damages under Chapter 271 of the Texas Local Government Code, and Section 311.034 of the Texas Government Code, regardless of whether CITY has actual or constructive notice or knowledge of said claim or alleged damages. COMPANY agrees that the requirements of this entire Agreement are reasonable.

J. Prompt Pay Act. The Parties agree that Texas Government Code, Chapter 2251, Payment for Goods and Services does not waive the CITY's governmental immunity.

K. Compliance. COMPANY shall comply with Texas Government Code § 2252.908, *et seq.*, as amended, and Texas Local Government Code § 176.006, *et seq.*, as amended.

L. Anti-Boycott Statutes. To the extent that Tex. Gov't Code §§ 2271.002 and 2274.002

apply to this Agreement, COMPANY hereby verifies that:

- COMPANY does not boycott Israel and will not boycott Israel during the term of this Agreement;
- COMPANY does not boycott energy companies and will not boycott energy companies during the term of this Agreement; and
- COMPANY does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of this Agreement against any firearm entity or firearm trade association.

If Tex. Gov't Code § 2270.002 does not apply to this Agreement, such verification is not required, and COMPANY shall be deemed to have not made such verification.

M. Records Retention and Production of Information. To the extent that this Agreement is a contract described by Tex. Gov't Code § 552.371, COMPANY shall: (i) preserve all contracting information related to the Agreement as provided by the records retention requirements applicable to CITY for the duration of the contract; (ii) promptly provide to CITY any contracting information related to the Agreement that is in the custody or possession of COMPANY on request of CITY; and (iii) on completion of the Agreement, either (a) provide at no cost to CITY all contracting information related to the Agreement that is in the custody or possession of COMPANY, or (b) preserve the contracting information related to the Agreement as provided by the records retention requirements applicable to CITY.

N. Public Information. To the extent that this Agreement is a contract described by Tex. Gov't Code § 552.371, COMPANY agrees as follows in accordance with Tex. Gov't Code § 552.372(b): The requirements of Subchapter J, Chapter 552, Government Code, may apply to this contract, and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

O. Conflict of Terms. If a conflict of terms or language exists between: (i) any of the provisions of this Agreement; and (ii) any of the provisions contained in any exhibit(s) attached to this Agreement, precedence shall be given to the provisions of this Agreement. For the avoidance of any doubt, the provisions contained in this Agreement shall supersede any and all conflicting provisions contained in any exhibit(s) attached hereto. Furthermore, the Parties acknowledge and agree that any provision contained in an exhibit(s) attached to this Agreement that imposes an

additional express or implied obligation on CITY is hereby made void and of no force or effect. CITY's sole and exclusive obligations under this Agreement are contained in the provisions of this Agreement that precede the signature page(s), which evidences the Parties' execution and acceptance hereof.

P. Iron or Steel Products Statute. Company agrees that all iron or steel products produced through a manufacturing process and used in the project that is the subject of this Agreement shall be produced in the United States in accordance with Government Code § 2252.202, et seq., as amended.

Q. Interpretation. By executing this Agreement, the Parties acknowledge and agree that this Agreement shall not be interpreted or construed against any Party solely because such Party or its legal counsel drafted this Agreement. The Parties have read, understood, and approve of the language and terms set forth herein.

## ARTICLE XV. INDEMNITY

**COMPANY (THE "INDEMNIFYING PARTY"), SHALL AT ITS SOLE COST INDEMNIFY, DEFEND, AND HOLD HARMLESS THE CITY, TOGETHER WITH THE CITY'S OFFICERS, AGENTS, COUNCIL MEMBERS, EMPLOYEES, CITY, THE "CITY INDEMNIFIED PARTIES"), FROM AND AGAINST ANY AND ALL DAMAGES, LIABILITIES, DEMANDS, CAUSES OF ACTION, CLAIMS, JUDGMENTS, SUITS, COSTS AND EXPENSES (INCLUDING REASONABLE ATTORNEYS' FEES) MADE BY ANY THIRD- PARTY, TO THE SERVICES PROVIDED BY COMPANY PURSUANT TO THIS AGREEMENT, (COLLECTIVELY, "INDEMNIFIED CLAIMS"), REGARDLESS OF THE LEGAL THEORY ASSERTED BY ANY THIRD PARTIES AND REGARDLESS OF WHETHER THE DAMAGES OR CLAIMS OF THIRD PARTIES ARE KNOWN OR FULLY APPRECIATED AT THIS TIME BY COMPANY OR THE CITY. THE INDEMNITIES IN THIS AGREEMENT ARE SPECIFICALLY INTENDED TO OPERATE AND BE APPLICABLE EVEN IF IT IS ALLEGED OR PROVED THAT ALL OR SOME OF THE DAMAGES BEING SOUGHT WERE CAUSED IN WHOLE OR IN PART BY ANY ACT, ERROR, OMISSION, NEGLIGENCE, GROSS NEGLIGENCE, INTENTIONAL CONDUCT, BREACH OF CONTRACT, BREACH OF WARRANTY, VIOLATION OF STATUTE OR COMMON LAW, VIOLATIONS OF THE STATE OR FEDERAL CONSTITUTIONS, OR ANY OTHER CONDUCT WHATSOEVER OF THE CITY INDEMNIFIED**

**PARTIES, WITH THE EXCEPTION THAT IF A COURT OF LAW ADJUDICATES THAT ALL OF THE DAMAGES WERE BASED ON THE CITY'S CONDUCT THE CITY SHALL ONLY BE LIABLE FOR ANY DAMAGES AS DETERMINED BY A COURT OF LAW TO BE CAUSED BY THE CITY. COMPANY SHALL USE LEGAL COUNSEL REASONABLY ACCEPTABLE TO THE CITY IN CARRYING OUT ITS OBLIGATIONS HEREUNDER. THE PROVISIONS OF THIS SECTION SHALL SURVIVE THE EXPIRATION OR EARLY TERMINATION OF THIS AGREEMENT. THE PROVISIONS OF THIS SECTION SHALL SURVIVE THE EXPIRATION OR EARLY TERMINATION OF THIS AGREEMENT. THIS INDEMNIFICATION IS NOT INTENDED TO APPLY TO CLAIMS MADE AGAINST THE CITY BY INDEMNIFIED PARTIES RESULTING FROM NEGLIGENT ACTS OF CITY EMPLOYEES COVERED UNDER SECTION 101.021 OF THE TEXAS CIVIL PRACTICE AND REMEDIES CODE.**

The parties hereby acknowledge and agree that CITY is entering this Agreement pursuant to its governmental function and that nothing contained in this Agreement shall be construed as constituting a waiver of the CITY'S governmental immunity from suit or liability, which is expressly reserved to the extent allowed by law. Notwithstanding anything to the contrary herein, the parties hereby acknowledge and agree that to the extent this Agreement is subject to the provisions of Subchapter I of Chapter 271, TEXAS LOCAL GOVERNMENT CODE, as amended, the CITY'S immunity from suit ls waived only as set forth in Subchapter I of Chapter 271, TEXAS LOCAL GOVERNMENT CODE. Further, the parties agree that this agreement is made subject to all applicable provisions of the Texas Civil Practices and Remedies Code ("CPRC"), including but not limited to all defenses, limitations, and exceptions to the limited waiver of Immunity from liability provided in Chapter 101 and Chapter 75.

**COMPANY AGREES THAT IT WILL INDEMNIFY AND SAVE CITY HARMLESS FROM ALL CLAIMS GROWING OUT OF ANY DEMANDS OF SUBCONTRACTORS, LABORERS, WORKMEN, MECHANICS, MATERIALMEN, AND FURNISHERS OF MACHINERY AND PARTS THEREOF, EQUIPMENT, POWER TOOLS AND ALL SUPPLIES, INCURRED IN THE FURTHERANCE OF THE PERFORMANCE OF THIS AGREEMENT. WHEN CITY SO DESIRES, COMPANY SHALL FURNISH SATISFACTORY EVIDENCE THAT ALL OBLIGATIONS OF THE NATURE HEREINABOVE DESIGNATED HAVE BEEN PAID, DISCHARGED OR WAIVED. COMPANY, ITS SURETIES AND INSURANCE CARRIERS SHALL DEFEND, INDEMNIFY AND SAVE HARMLESS CITY AND ALL OF ITS OFFICERS,**

**AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, OR CLAIMS OF ANY CHARACTER WHATSOEVER, BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ARISING FROM ANY ACT OF COMPANY OR ANY SUBCONTRACTOR, THEIR AGENTS OR EMPLOYEES, IN THE EXECUTION AND SUPERVISION OF THIS AGREEMENT, AND WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST CITY OR ANY OF ITS OFFICERS, AGENTS, OR EMPLOYEES INCLUDING ATTORNEY'S FEES. THE OBLIGATIONS CONTAINED IN THIS SECTION XV SHALL SURVIVE THE TERMINATION OF THIS AGREEMENT.**

## ARTICLE XVI. LIMITATION OF LIABILITY

**IN NO EVENT SHALL COMPANY, ITS EMPLOYEES, CONTRACTORS, DIRECTORS, AFFILIATES AND/OR AGENTS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, SUCH AS, BUT NOT LIMITED TO, DELAY, LOST DATA, DISRUPTION, AND LOSS OF ANTICIPATED PROFITS OR REVENUE ARISING FROM OR RELATED TO THE SERVICES, WHETHER LIABILITY IS ASSERTED IN CONTRACT OR TORT, AND WHETHER OR NOT COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF ANY SUCH LOSS OR DAMAGE. IN ADDITION, COMPANY'S TOTAL LIABILITY HEREUNDER, INCLUDING REASONABLE ATTORNEYS' FEES AND COSTS, SHALL IN NO EVENT EXCEED AN AMOUNT EQUAL TO FOUR TIMES THE FEES DESCRIBED IN EXHIBIT B. THE FOREGOING SETS FORTH THE CITY'S EXCLUSIVE REMEDY FOR CLAIMS ARISING FROM OR OUT OF THIS AGREEMENT.**

**IN NO EVENT SHALL CITY, ITS EMPLOYEES, CONTRACTORS, DIRECTORS, AFFILIATES AND/OR AGENTS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, SUCH AS, BUT NOT LIMITED TO, DELAY, LOST DATA, DISRUPTION, AND LOSS OF ANTICIPATED PROFITS OR REVENUE ARISING FROM OR RELATED TO THE SERVICES, WHETHER LIABILITY IS ASSERTED IN CONTRACT OR TORT, AND WHETHER OR NOT CITY HAS BEEN ADVISED OF THE POSSIBILITY OF ANY SUCH LOSS OR DAMAGE. IN**

**ADDITION, CITY'S TOTAL LIABILITY HEREUNDER, INCLUDING REASONABLE ATTORNEYS' FEES AND COSTS, SHALL IN NO EVENT EXCEED AN AMOUNT EQUAL TO THE FEES DESCRIBED IN EXHIBIT B. THE FOREGOING SETS FORTH THE COMPANY'S EXCLUSIVE REMEDY FOR CLAIMS ARISING FROM OR OUT OF THIS AGREEMENT.**

**THE PROVISIONS OF THIS SECTION ALLOCATE THE RISKS BETWEEN COMPANY AND THE CITY AND COMPANY'S PRICING REFLECTS THE ALLOCATION OF RISK AND LIMITATION OF LIABILITY SPECIFIED HEREIN.**

*[Signature Page(s) Follows]*

EXECUTED IN DUPLICATE the day and year first above mentioned.

THE CITY OF MIDLAND, TEXAS

_____
Tommy Gonzalez, City Manager

ATTEST:

_____
Marcia Bentley-German, City Governance Officer/City Secretary

APPROVED AS TO FORM ONLY:

_____
John Ohnemiller, City Attorney

COMPANY:

By: _____

Name:_____

Title: _____

STATE OF _____ §
§
COUNTY OF _____§

BEFORE ME, the undersigned authority, on this ____ day of _____, 2023 personally appeared, _____, an officer of Avenu Insights & Analytics, LLC, known to me to be the person and official whose name is subscribed to the forgoing instrument, and acknowledged to me that he executed the same as the act and deed of said corporation, for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the __day of _____, 2023.

_____
Notary Public, State of

## EXHIBIT A – STATEMENT OF WORK

## A.1 SALES AND USE TAX COMPLIANCE REVIEW SERVICE ("SUTA-TX")

### Objectives and Methods

AVENU's Sales and Use Tax Compliance Review Service is designed to assist CLIENT in enhancing its sales and use tax revenues by detecting, documenting, and correcting sales and use tax errors thereby producing previously unrealized revenue for CLIENT.

### Statement of Work

In providing the Sales and Use Tax Compliance Review Service, AVENU shall:

- Meet with CLIENT's designated staff to review service objectives, scope, procedures, coordination of effort, work plan schedule, public relations, and logistical matters.
- Establish an appropriate liaison with the CLIENT and define logical checkpoints for reviewing progress.
- Perform a review of the CLIENT's businesses' sales and/use tax remittances to ensure proper application of local sales and/ use tax law and achieve past and/or prospective compliance, as applicable.
- On behalf of the CLIENT, AVENU will assist the businesses, as needed, in preparing and filing amended returns and/or reallocation requests with the Comptroller's office to gain compliance. AVENU and/or the CLIENT may also provide additional documentation to the Comptroller's office to request its assistance in gaining compliance from taxpayers as needed.

### AVENU Deliverables

**Progress Reports**

AVENU will provide periodic progress reports to CLIENT in the form of status updates. AVENU's progress reports will identify errors detected, documented, and corrected.

### CLIENT Assistance

CLIENT shall assist AVENU by providing information and assistance necessary to perform the Sales and Use Tax Compliance Review to include, without limitation, the following:

- Providing AVENU historical sales and use tax information including confidentiality reports received from the Comptroller for past periods, if available.
- Issuing necessary documentation to the Comptroller to allow AVENU to access and receive detailed confidentiality reports monthly.
- Providing a letter of introduction identifying AVENU as an authorized agent of the CLIENT to perform the Sales and Use Tax Compliance Review and to receive and examine taxpayer records necessary to assure sales and Use tax compliance.
- Pursuing in good faith corrective action on errors detected by AVENU.
- Issuing necessary documentation to the Comptroller to correct errors validated by AVENU.

The parties agree that the CLIENT and/or the Comptroller retain exclusive authority and responsibility to administer, interpret and enforce the CLIENT's sales and use tax, recognizing that AVENU's role is limited to employing its unique expertise and proprietary tools for: i) detecting and documenting errors by taxpayers in the application, calculation, collection, and/or remittance of sales and use taxes and, ii) providing CLIENT with technical assistance, without assuming or being delegated the authority or responsibility of CLIENT to administer, interpret, and enforce its sales and use taxes.

## A.2 LOCAL OCCUPANCY TAX AUDIT SERVICE

### Objectives and Methods

AVENU's Local Occupancy Tax Audit Service is intended to assist the CLIENT in maximizing tax revenue it is entitled to through an examination of records and education of the lodging providers to ensure the appropriate collection and remittance of the occupancy tax.

### Statement of Work

**Audit Services**

- Perform examinations of the records of those providers requested by CLIENT to warrant further investigation.
- Provide CLIENT staff with a draft engagement announcement letter to be sent to each lodging provider requiring examination.
- In coordination with CLIENT staff, schedule, and conduct reviews at the property locations or remotely of those providers identified and authorized for examination.
- Verify accuracy of filed lodging tax returns with daily and monthly activity summaries.
- Review a random sample of the daily and monthly summaries to determine if the daily summaries reconcile to the monthly summaries if applicable.
- Review bank statements to verify that deposits reconcile with the reported revenue on the lodging tax returns if necessary.
- Review exempted revenue for proper qualifying documentation.
- Review a random sample of exempted guest revenue and trace registration and/or other source documents to verify compliance with the CLIENT ordinance.
- Where possible, compare the State lodging tax filings with CLIENT's tax returns.
- For each error/omission identified and confirmed, submit substantiating documentation to designated CLIENT staff to facilitate collection of revenue due from lodging providers for prior periods.
- Coordinate with designated CLIENT official(s) as necessary to review findings and recommendations.
- Prepare draft Notices of Deficiency Determination, commendation, and credit letters, as applicable, for CLIENT to advise lodging providers of examination results
- Provide assistance to CLIENT in reviewing any matters submitted in extenuation and mitigation by lodging providers in contesting a deficiency determination; and
- Prepare and document any changes to the review findings and provide revised tax amounts due to the CLIENT.

## AVENU Deliverables

**Audit Services**

- Provide CLIENT staff with a draft Audit Announcement Letter to be sent to each lodging provider to be examined.
- For each error/omission identified and confirmed, submit a written report substantiating documentation to designated CLIENT staff to facilitate collection of revenue due from lodging providers for prior periods together with draft Notices of Deficiency Determination, and/or credit, or commendation letters as applicable;
- Prepare and document any changes to the review findings and provide revised tax amounts due to the CLIENT.
- Review any extenuation or mitigation proffered to deficiency determinations and prepare draft response to CLIENT staff; and
- Provide other collections advice upon request.

## CLIENT Assistance

- The CLIENT shall agree to an audit plan stating the minimum number of audits to be started by year (See Exhibit B).
- Provide AVENU with the records of those taxpayers authorized by CLIENT for examination
- CLIENT agrees provide signed audit authorization letters on CLIENT letterhead as needed within thirty (30) days of request.
- CLIENT agrees to provide AVENU with its ordinances, codes, and tax rates within thirty (30) days of the effective date of the agreement, and notice of any changes thereafter in the ordinances, codes, and tax rates levied by the CLIENT.
- CLIENT agrees to timely sign subpoenas, as required.
- CLIENT agrees to timely sign and approve letters and notices, as required.

# A.3 FRANCHISE FEE COMPLIANCE REVIEW SERVICES

## Objectives and Methods

The CLIENT desires to have AVENU conduct a Franchise Fee Compliance Review ("Review") of the CLIENT's franchisees. The Reviews are an agreed-upon procedures review of the franchise fee payments made to the CLIENT from the franchisees. The entity, taxes and/or fees to be audited will be approved by CLIENT.

## Statement of Work

1. **Pre-Audit Planning -** To initiate the project, we recommend scheduling an introductory meeting with designated CLIENT management, to:
   - Identify the population of franchisees to be considered for examination.
   - Obtain copies of the ordinances and agreements governing each franchisee.

- Review with the CLIENT any known compliance issues or previous compliance activity, and any other factors, for example, any recent boundary changes, annexations, or rate changes, that might impact compliance.
- Identify relevant payment records available from the CLIENT.
- Develop a specific list of audit engagements authorized by the CLIENT.

2. **Schedule and Complete Audit Engagements -** Based on the list of approved engagements, we will proceed to contact those franchisees for which the CLIENT has approved audits. In preparing for and conducting its review of each franchisee, AVENU will employ the following procedures:
   - Obtain a letter of authorization from the CLIENT, copies of franchise agreements and any correspondence with the providers, and a history of franchise payments.
   - Obtain and review available documents, reports, work papers, and any prior reports prepared by the internal or external auditors, which concern the computation or methodologies for computing the franchise fee paid.
   - Submit a Request for Information to each franchisee to obtain the information needed to complete our review.
   - Review the work papers and supporting documentation used in the computation of the franchise fee payments.
   - Identify any revenues excluded from the franchise fee calculation:
   - Review and analyze all the franchisee revenue accounts in detail to determine revenues that are to be included or excluded from the franchise fee computations; review the revenues excluded from the computations, if any, and determine if they are permitted by the CLIENT's franchise agreement, or relevant state law.
   - If applicable, determine if franchisee or any of its subsidiaries receives any revenues from customers/subscribers or third parties for the use of utility's facilities located on CLIENT's right-of-way authorized by the franchise agreement that are not included in the franchise fee calculation used to determine the payment to the CLIENT.
   - If applicable, review the process used to compute franchise fees on meter diversion revenue for gas and electric providers.
   - If applicable, evaluate the franchisee's treatment of natural gas and electric self-consumed within its facilities located within the CLIENT's jurisdiction.
   - Analyze the number of customers/subscribers reported in the CLIENT's jurisdiction by rate classification and obtain and review the franchisee's procedures to code new customers/subscribers to the proper jurisdictions and the procedures used to address annexations.
   - Obtain and review the list of exempted customers/subscribers, if any, from the franchise fee computation.
   - Compare customer/subscriber address data for each franchisee with address data to be provided by the CLIENT to determine whether any residents and businesses currently within the boundaries of the CLIENT have been or are being serviced/invoiced without remittance of the appropriate tax or payment to the CLIENT.
   - Sample test the franchisee's billings for completeness and accuracy and verify that all monies collected are submitted to the CLIENT.

- Compare the franchisee's payments, exclusions, and other computations as related to the franchise agreement, or relevant state law. Compare the actual payments made to the CLIENT for timeliness and accuracy.

## AVENU Deliverables

**Reports/Deliverables**
Throughout the course of the engagement, we will produce reports for each franchisee documenting the following:

- Accomplishments to date.
- Next-step options and timeline for completion.
- Open items needing attention, with identification of the responsible party.
- Updates on issues requiring CLIENT attention.
- Review findings with franchisee and obtain the franchisee's position on the findings. Findings will include electronic format data of all exceptions in formats required by utilities.
- Prepare a written report with findings that describe and explain the results of our review, identifying residents and businesses that, for whatever reason, are not paying the appropriate level of taxes, potential additional monies due to the CLIENT, and any applicable penalties and interest.

AVENU will schedule a final presentation for each franchisee of these findings with the CLIENT.

**Implementation**

- Provide any necessary schedules and supporting documents to assist the CLIENT in collecting underpaid or unpaid franchise fees.
- Provide ongoing assistance in implementing findings with applicable franchisees.
- On an ongoing basis, work with the CLIENT and applicable franchisees to implement those findings and recommendations authorized by the CLIENT for further action.
- Conduct a post implementation review to ensure that the requested changes have been implemented by the franchisee.

**Suggested Schedule**
AVENU will begin scheduling audit examinations within thirty (30) days of the execution or Effective Date of the Agreement with the CLIENT. Although we can assure the CLIENT of sufficient auditing resources to initiate audits without delay on AVENU's part, the actual start date and time to completion for any given engagement will depend to some extent on the timely cooperation of the franchisee being audited, including timeliness of source document provision, response to inquiries, and quality and completeness of data provided; as well as the complexity of the audit itself, and the time required to resolve any issues that the franchisee may raise regarding the results reported.

The following is AVENU's suggested project timeline:

- Commencement of the work: within ten (10) working days of a fully executed agreement and the required letter of authorization and other documents from the CLIENT.

- Review of Franchise fee payment: within ten (10) working days of receipt of necessary data, such as franchise payment history, from the provider and the CLIENT.
- Completion of the final report: within four (4) to six (6) months (depending on factors noted above, the number of franchisees to be audited, and whether the CLIENT prefers to proceed with audits one-by-one, or concurrently).
- Throughout the project, we will provide the CLIENT with progress reports as applicable. Upon completion of each audit, we will issue a draft report to the CLIENT noting the findings. After the CLIENT's review and approval, we will issue a final report.

## CLIENT Assistance

- The CLIENT shall agree to an audit plan stating the minimum number of audits to be started by year in Exhibit B.
- Provide AVENU with a letter of authorization from the CLIENT.
- Provide copies of the franchise agreements, amendments, and any subsequent agreements relating to franchise fee collection.
- Provide any prior reports prepared by the internal or external auditors which concern the computation or methodologies for computing franchise fee.
- Provide a history of franchise payments made by providers to the CLIENT.
- AVENU will request an electronic copy of address ranges, annexations, and any border changes if applicable and/or available.
- The CLIENT will designate a representative to review the reports and presentations discussed above.

## EXHIBIT B – COMPENSATION SCHEDULE

### B.1 SALES AND USE TAX COMPLIANCE REVIEW SERVICE ("SUTA-TX")

The CLIENT shall pay AVENU a thirty five percent (35%) contingency fee for the Sales and Use Tax Compliance Review Service. The fee applies to the sales/use tax revenue received by the CLIENT from correction of taxpayer reporting errors detected and documented by the Sales Tax Compliance Review. The Contingency Fee applies to both: (a) past compliance (as applicable) – sales/use tax revenues received by the CLIENT from prior periods; and (b) prospective compliance (as applicable) -- incremental increase in sales/use tax revenues received for the first eight consecutive reporting quarters twenty-four (24) months following correction of the errors and confirmation of receipt of revenue by the CLIENT. An incremental increase is calculated as the current month's correct tax remittance less the monthly average of the prior twelve (12) months immediately prior to the first month of correct tax remittance.

AVENU will invoice CLIENT quarterly based on past and/or prospective compliance secured on behalf of CLIENT. Invoices are due and payable upon receipt.

All expenses incurred by AVENU in providing the Sales/Use Tax Compliance Review are the sole and exclusive responsibility of AVENU, except those expenses that receive prior written approval by CLIENT.

**Completion of Services**

Notwithstanding anything else in this Agreement, to the contrary, the CLIENT will pay AVENU per the terms of this Agreement for services begun before termination or expiration of the Agreement even if the monies are received after termination or expiration. AVENU will provide CLIENT with a list of taxpayer accounts submitted but not yet corrected as of the expiration or termination within a reasonable time after the expiration or termination ("completion list"). AVENU can continue working those taxpayer accounts on the completion list for a reasonable time to obtain a correction.

### B.2 LOCAL OCCUPANCY TAX AUDIT SERVICES

The CLIENT shall pay AVENU the following fixed fees listed below for Local Occupancy Tax Audit Services for each lodging property audited with 50% due at the time of audit approval and 50% upon completion of the audit. A minimum audit of 20% of the annual property count must be performed each year.

**Hotel Audits**

Year 1 $2,000

Year 2 $2,100

Year 3 $2,200

Year 4 $2,300

Year 5 $2,400

## B.3 FRANCHISE FEE COMPLIANCE REVIEW SERVICES

AVENU's compensation for the Franchise Fee Compliance Review Services shall be a Thirty-five (35%) contingency fee. The contingency fee shall apply to revenue received by the CLIENT as a result of deficiencies identified in the review and shall include any eligible prior period revenues together with all applicable penalties, interest, and late charges. The CLIENT agrees to use reasonable and diligent efforts to collect deficiencies identified by AVENU.

For deficiencies otherwise deemed lawfully collectible but for which the CLIENT elects not to collect, the CLIENT shall notify AVENU of its election not to pursue ("waive") collection of said deficiencies. In such instances, AVENU's fee shall be converted from a contingent fee to an hourly rate of One Hundred Fifty Dollars ($150) per hour spent on the project to date or one-half (1/2) of the fee AVENU would have been entitled to but for the waived portion of the deficiency, whichever is greater, plus additional out-of-pocket expenses incurred in the audit.

## B.4 ADDITIONAL EXPENSES

**Travel and Out-of-Pocket**
CLIENT shall reimburse AVENU for reasonable travel and other out-of-pocket expenses associated with the performance of the field audits including but not limited to lodging, parking, mileage, per diem, etc. (Mileage and per diem shall be according to IRS regulations). Such reimbursement shall be billed incrementally.

**Additional Consulting**
CLIENT may request that AVENU provide additional consulting services at any time during the term of this Agreement. If AVENU and CLIENT agree on the scope of the additional consulting services requested, then AVENU shall provide the additional consulting on a Time and Materials basis. Depending on the personnel assigned to perform the work, standard hourly rates range from ninety dollars ($90) per hour to three-hundred fifty dollars ($350) per hour. These additional consulting services will be invoiced at least monthly based on actual time and expenses incurred.

**PROFESSIONAL SERVICES AGREEMENT**
**24000284**

**THIS AGREEMENT** is made and effective the 15th day of November 2023, by and between the CITY OF MIDLAND, TEXAS ("*CITY*"), a home-rule municipal corporation, and Avenu Insights & Analytics, LLC ("*COMPANY*"). CITY and COMPANY are at times individually referred to as a "*Party*" and collectively referred to as the "*Parties*."

## ARTICLE I. PURPOSE

The purpose of this Agreement is to state the terms and conditions under which COMPANY shall perform accounting services concerning Sales Use Tax Administration, Hotel Auditing and Franchise Fee Auditing (the "*Services*") for CITY. The Services are more specifically set forth in **Exhibit A**, which is attached hereto and incorporated herein for all purposes.

## ARTICLE II. SERVICES TO BE PERFORMED

COMPANY shall provide the Services in a manner consistent with the same level of skill and care as other professionals that perform similar services for similar projects in approximately the same region and at approximately the same point in time. COMPANY represents that any employee who performs the Services shall be fully qualified and competent to perform the Services.

## ARTICLE III. FINANCIAL CONSIDERATIONS

CITY agrees to pay COMPANY according to the schedule set forth in **Exhibit A** upon presentation of a monthly invoice. The monthly invoice shall set forth all service fees for the month and those expenses described in **Exhibit B** that COMPANY incurs during the previous period which COMPANY has agreed to in **Exhibit B**. All additional and/or reimbursable expenses must be approved by the City Manager prior to incurring such expenses.

Within thirty (30) days of the date COMPANY's invoice is received by CITY, CITY shall pay the full amount of such invoice; provided, however, that if CITY objects to any portion of an invoice, CITY shall notify COMPANY of CITY's objection and the grounds therefor within fifteen (15) days of the date of receipt of the invoice, and the Parties shall immediately make every effort to settle the disputed portion of the invoice. Notwithstanding the foregoing, CITY shall pay

every portion of the invoice that is not in dispute within the 30-day period for payment.

## ARTICLE IV. TERM

The Initial term of this Agreement shall be one (1) year. CITY shall have the right to extend the term of this Agreement for two (2) additional one (1) year periods by providing written notice to COMPANY of CITY's desire to extend the Contract not later than sixty (60) days prior to the end of the then current term. Extensions of this Contract will be based on acceptable performance as long as the price does not exceed administrative parameters.

## ARTICLE V. TERMINATION AT WILL

CITY may terminate this Agreement at will, for any or no reason, upon giving COMPANY at least one hundred eighty (180) days' written notice. The Parties understand and agree that it is in CITY'S sole and absolute discretion to cancel this Agreement during the term set forth in Article IV without penalty to CITY. COMPANY has no expectation and has received no guarantees that this Agreement will not be terminated during the Agreement's term. The Parties have bargained for the flexibility of terminating this Agreement upon tender of the requisite notice at any time during this Agreement's term. All work and services under the Agreement shall be suspended upon termination of the Agreement becoming effective.

Effect of Termination: Notwithstanding non-renewal or termination of this Agreement, CITY shall be obligated to pay COMPANY for services performed through the effective date of termination for which COMPANY has not been previously paid. In addition, because the services performed by COMPANY prior to termination or non-renewal of this Agreement may result in the CITY's receipt of revenue after termination which are subject to COMPANY's fee, the CITY shall remain obligated after termination or non-renewal to provide to COMPANY such information as is necessary for COMPANY to calculate compensation due as a result of the receipt of revenue by the CITY. Termination of this Agreement for any reason will not affect any liabilities or obligations of either party arising before termination or out of events causing termination and will not affect any damages or other remedies to which a party may be entitled under this Agreement, at law, or in equity, arising from any breach or default.

## ARTICLE VI. ASSIGNMENT

COMPANY shall not, either directly or indirectly, assign all or any part of this Agreement, or any interest, right or privilege herein, without obtaining CITY's prior written consent, which consent shall not be unreasonably withheld.

## ARTICLE VII. OWNERSHIP AND CONFIDENTIALITY OF DOCUMENTS AND OTHER WORK PRODUCT

All reports, information and other data ("*Instruments of Service*") given to, prepared or assembled by COMPANY under this Agreement, and any other related document or item shall become the sole and exclusive property of CITY. The Instruments of Service shall be promptly delivered, without restriction, to CITY and such other persons or entities as CITY may designate; provided, however, that COMPANY may make copies of the Instruments of Service for its files.

## ARTICLE VIII. INDEPENDENT CONTRACTOR

COMPANY shall perform the Services as an independent contractor and not as an officer, agent, servant or employee of CITY. COMPANY shall have exclusive control of and the exclusive right to control the details of the Services and all persons performing the same. COMPANY shall be solely responsible for the acts and omissions of its officers, agents, employees, contractors and subcontractors. The Parties acknowledge and agree that the doctrine of *respondeat superior* shall not apply as between CITY and COMPANY, its officers, agents, employees, contractors and subcontractors. Nothing in this Agreement shall be construed as creating a partnership or joint enterprise between CITY and COMPANY. No person performing the Services shall be considered an officer, agent, servant or employee of CITY. Further, it is specifically understood and agreed that nothing in this Agreement is intended nor shall be construed as creating a "Community of Pecuniary Interest" or "An Equal Right of Control" that would give rise to vicarious liability. COMPANY is an independent contractor under this Agreement and shall assume all rights, obligations, and liabilities applicable to it as an independent contractor. CITY does not have the power to direct the order in which the services are performed. CITY shall not have the right to control the means, methods or details of COMPANY'S work. COMPANY shall assume exclusive responsibility for performing the Services, and is entirely free to perorm the Services in its own way.

## ARTICLE IX. INSURANCE

During the term of this Agreement, COMPANY shall maintain and keep in full force and effect insurance in the following types and minimum amounts with companies authorized to do business in the State of Texas:

| | |
|---|---|
| Commercial General Liability (including Contractual liability): | |
| -Personal Injury: | $1,000,000.00 per person |
| | $1,000,000.00 per occurrence |
| -Property Damage: | $500,000.00 per occurrence |
| Business Automobile Liability: | $250,000.00 combined single limit - |
| | Personal Injury and Property Damage |
| Workers' Compensation: | Statutory limits |
| Employers' Liability: | $500,000.00 per accident or occurrence |

The Commercial General Liability policy shall be on a per project aggregate, including completed operations, and shall be on a claims-occurred basis. This policy shall name CITY as an additional insured and waive subrogation in favor of CITY.

The Business Automobile Liability policy shall cover any vehicle for bodily injury and property damage, including owned vehicles, hired and non-city vehicles, and employee non-ownership, and the amount of such policy shall be a minimum of $250,000.00 covering any vehicle used for the execution of the Services. This policy shall name CITY as an additional insured and waive subrogation in favor of CITY.

The Workers' Compensation policy shall inure to the benefit of employees injured during the course and scope of their employment by COMPANY pursuant to this Agreement. The Workers' Compensation policy shall waive all rights of subrogation in favor of CITY.

All insurance policies required by this Agreement shall (i) provide for a waiver of subrogation in favor of CITY, and (ii) name CITY as an additional insured on a claims-occurred basis (except for the Workers' Compensation policy). Prior to any reduction or termination of the insurance policies referenced herein, COMPANY shall ensure that its insurance provider submits written notice to CITY no later than thirty (30) days prior to the reduction or termination of such coverage.

COMPANY shall contractually require all contractors, subcontractors, and sub-subcontractors that perform the Services to obtain insurance coverage that meets or exceeds the

policy requirements and minimum amounts specified herein. All contractors, subcontractors, and sub-subcontractors shall obtain insurance policies that provide blanket waivers of subrogation in favor of the City of Midland and that name the City of Midland as an additional insured on a claims-occurred basis (except Workers' Compensation).

Prior to the execution of the Agreement, COMPANY shall provide one or more certificates of insurance specifically stating that requirements of this Article have been met, which shall be subject to the approval of CITY. CITY shall not be required to provide any insurance pursuant to this Agreement.

By executing this Agreement, COMPANY certifies that the certificate of insurance provided pursuant to this Article complies with the requirements of Chapter 1811 of the Texas Insurance Code. COMPANY shall not use an unapproved certificate of insurance or insert inappropriate language on a certificate. Compliance with state law and this Agreement is the sole and exclusive responsibility of COMPANY.

Notwithstanding any contrary provision contained herein, the City Manager, in his/her sole and absolute discretion, modify the insurance requirements contained in this Article.

## ARTICLE X. ATTORNEY FEES

**BY EXECUTING THIS AGREEMENT, COMPANY AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST CITY, REGARDING THE AWARD OF ATTORNEY FEES, WHICH ARE IN ANY WAY RELATED TO THIS AGREEMENT OR THE CONSTRUCTION, INTERPRETATION, OR BREACH OF THIS AGREEMENT. COMPANY SPECIFICALLY AGREES THAT IF COMPANY BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS AGREEMENT, THE CONSTRUCTION, INTERPRETATION, VALIDITY OR BREACH OF THIS AGREEMENT (INCLUDING, BUT NOT LIMITED TO, ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET SEQ., AS AMENDED) OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE), COMPANY AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY FEES TO WHICH COMPANY MIGHT**

**OTHERWISE BE ENTITLED.**

**COMPANY AGREES THAT THIS IS A VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY-EXISTING KNOWN RIGHT. COMPANY ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THIS AGREEMENT. COMPANY FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN CITY AND COMPANY. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF GOVERNMENTAL IMMUNITY.**

**COMPANY IS RELYING ON ITS OWN JUDGMENT AND HAD THE OPPORTUNITY TO DISCUSS THIS AGREEMENT WITH COMPETENT LEGAL COUNSEL PRIOR TO ITS EXECUTION. THE PROVISIONS OF THIS ARTICLE SHALL SURVIVE THE TERMINATION OF THIS AGREEMENT.**

## ARTICLE XI. GOVERNMENTAL IMMUNITY

By executing this Agreement, CITY is not waiving its right of governmental immunity. CITY is retaining its immunity from suit. CITY is not granting consent to be sued by legislative resolution or action. **THERE IS NO WAIVER OF GOVERNMENTAL IMMUNITY.**

## ARTICLE XII. NO THIRD-PARTY BENEFICIARY

CITY's approval of this Agreement does not create a third-party beneficiary. There is no third-party beneficiary to this Agreement. No person or entity who is not a party to this Agreement shall have any third-party beneficiary or other rights hereunder.

## ARTICLE XIII. INTENTIONALLY OMITTED

## ARTICLE XIV. GENERAL PROVISIONS

A. Waiver. No waiver by CITY of a breach of any covenant, condition, or restriction of this Agreement shall be construed or held to be a waiver of any succeeding or preceding breach of the same or any other covenant, condition, or restriction contained in this Agreement.

B. Governing Law and Venue. The laws of the State of Texas shall govern, construe and enforce all rights and duties of the Parties, including, but not limited to, tort claims and any contractual claims or disputes arising from or relating in any way to the subject matter of this Agreement, without regard to conflict of laws and rules that would direct application of the laws

of another jurisdiction. All performance and payment made pursuant to this Agreement shall be deemed to have occurred in Midland County, Texas. The obligations and undertakings of the Parties shall be deemed to have occurred in Midland County, Texas. Exclusive venue for any claim, suit, or other action arising from or connected in any way to this Agreement shall be in Midland County, Texas.

C. Notice. Any notice or demand made regarding this Agreement shall be made in writing and delivered, either in person or by certified or registered mail, at the addresses provided below. Notice by mail shall be complete upon deposit of the paper, postage prepaid, in a post office or official depository under the care and custody of the United States Postal Service.

If to CITY: City Manager's Office
P.O. Box 1152
Midland, Texas 79702

If to COMPANY: Avenu Insights & Analytics, LLC
5860 Trinity Parkway, Suite 120
Centreville, VA 20120

The parties hereto may change the above-designated addresses by giving notice pursuant to the terms of this Section.

D. Severability. If one or more of the provisions contained in this Agreement are held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and this Agreement shall be construed as if the invalid, illegal, or unenforceable provision were never contained herein.

E. Use of Language. Words in the singular shall be held to include the plural, unless the context otherwise requires.

F. Amendments, Modifications, Alterations. No amendment, modification, or alteration of this Agreement shall be binding unless such is evidenced in writing, dated subsequent to the date of this Agreement, and duly executed by the Parties.

G. Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be deemed as original, and all of which shall constitute one and the same instrument.

H. Federal Wage Requirements. If applicable, the Davis-Bacon Act, 29 CFR 5.5, and any related acts or regulations are hereby incorporated by reference and made a part of this Agreement, and all terms and requirements under said statutes and regulations are made terms and conditions

of this Agreement, to which the Parties have agreed to be bound.

I. Notice of Alleged Breach; Statutory Prerequisites. As a condition precedent to filing suit for alleged damages incurred by an alleged breach of an express or implied provision of this Agreement, COMPANY or its legal representative shall give the City Manager, or any other reasonable official of CITY, written notice (consisting of one (1) original and seven (7) copies of such notice attached to a copy of this Agreement) of such duly-verified damages within one hundred fifty (150) days after the same has been sustained. The discovery rule does not apply to the giving of such notice. The notice shall include when, where, and how the damages occurred, the apparent extent thereof, the amount of damages sustained, the amount for which COMPANY will settle, the physical and mailing addresses of COMPANY at the time and date the claim was presented, the physical and mailing addresses of COMPANY for the six (6) months immediately preceding the occurrence of such damages, and the names and addresses of the witnesses upon whom COMPANY relies to establish its claim. COMPANY's failure to so notify the City Manager within the time and manner provided herein shall exonerate, excuse and except CITY from any liability whatsoever. CITY is under no obligation to provide notice to COMPANY that COMPANY'S notice is insufficient. CITY reserves the right to request additional information regarding the claim. Said additional information shall be supplied within thirty (30) days after COMPANY's receipt of such notice.

The statutory prerequisites outlined herein constitute jurisdictional requirements pursuant to Section 271.154 of the Texas Local Government Code and Section 311.034 of the Texas Government Code. Notwithstanding any contrary provision contained herein, COMPANY's failure to comply with the requirements herein shall perpetually bar COMPANY's claim for damages under Chapter 271 of the Texas Local Government Code, and Section 311.034 of the Texas Government Code, regardless of whether CITY has actual or constructive notice or knowledge of said claim or alleged damages. COMPANY agrees that the requirements of this entire Agreement are reasonable.

J. Prompt Pay Act. The Parties agree that Texas Government Code, Chapter 2251, Payment for Goods and Services does not waive the CITY's governmental immunity.

K. Compliance. COMPANY shall comply with Texas Government Code § 2252.908, *et seq.*, as amended, and Texas Local Government Code § 176.006, *et seq.*, as amended.

L. Anti-Boycott Statutes. To the extent that Tex. Gov't Code §§ 2271.002 and 2274.002

apply to this Agreement, COMPANY hereby verifies that:

- COMPANY does not boycott Israel and will not boycott Israel during the term of this Agreement;
- COMPANY does not boycott energy companies and will not boycott energy companies during the term of this Agreement; and
- COMPANY does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of this Agreement against any firearm entity or firearm trade association.

If Tex. Gov't Code § 2270.002 does not apply to this Agreement, such verification is not required, and COMPANY shall be deemed to have not made such verification.

M. Records Retention and Production of Information. To the extent that this Agreement is a contract described by Tex. Gov't Code § 552.371, COMPANY shall: (i) preserve all contracting information related to the Agreement as provided by the records retention requirements applicable to CITY for the duration of the contract; (ii) promptly provide to CITY any contracting information related to the Agreement that is in the custody or possession of COMPANY on request of CITY; and (iii) on completion of the Agreement, either (a) provide at no cost to CITY all contracting information related to the Agreement that is in the custody or possession of COMPANY, or (b) preserve the contracting information related to the Agreement as provided by the records retention requirements applicable to CITY.

N. Public Information. To the extent that this Agreement is a contract described by Tex. Gov't Code § 552.371, COMPANY agrees as follows in accordance with Tex. Gov't Code § 552.372(b): The requirements of Subchapter J, Chapter 552, Government Code, may apply to this contract, and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

O. Conflict of Terms. If a conflict of terms or language exists between: (i) any of the provisions of this Agreement; and (ii) any of the provisions contained in any exhibit(s) attached to this Agreement, precedence shall be given to the provisions of this Agreement. For the avoidance of any doubt, the provisions contained in this Agreement shall supersede any and all conflicting provisions contained in any exhibit(s) attached hereto. Furthermore, the Parties acknowledge and agree that any provision contained in an exhibit(s) attached to this Agreement that imposes an

additional express or implied obligation on CITY is hereby made void and of no force or effect. CITY's sole and exclusive obligations under this Agreement are contained in the provisions of this Agreement that precede the signature page(s), which evidences the Parties' execution and acceptance hereof.

P. Iron or Steel Products Statute. Company agrees that all iron or steel products produced through a manufacturing process and used in the project that is the subject of this Agreement shall be produced in the United States in accordance with Government Code § 2252.202, et seq., as amended.

Q. Interpretation. By executing this Agreement, the Parties acknowledge and agree that this Agreement shall not be interpreted or construed against any Party solely because such Party or its legal counsel drafted this Agreement. The Parties have read, understood, and approve of the language and terms set forth herein.

## ARTICLE XV. INDEMNITY

**COMPANY (THE "INDEMNIFYING PARTY"), SHALL AT ITS SOLE COST INDEMNIFY, DEFEND, AND HOLD HARMLESS THE CITY, TOGETHER WITH THE CITY'S OFFICERS, AGENTS, COUNCIL MEMBERS, EMPLOYEES, CITY, THE "CITY INDEMNIFIED PARTIES"), FROM AND AGAINST ANY AND ALL DAMAGES, LIABILITIES, DEMANDS, CAUSES OF ACTION, CLAIMS, JUDGMENTS, SUITS, COSTS AND EXPENSES (INCLUDING REASONABLE ATTORNEYS' FEES) MADE BY ANY THIRD- PARTY, TO THE SERVICES PROVIDED BY COMPANY PURSUANT TO THIS AGREEMENT, (COLLECTIVELY, "INDEMNIFIED CLAIMS"), REGARDLESS OF THE LEGAL THEORY ASSERTED BY ANY THIRD PARTIES AND REGARDLESS OF WHETHER THE DAMAGES OR CLAIMS OF THIRD PARTIES ARE KNOWN OR FULLY APPRECIATED AT THIS TIME BY COMPANY OR THE CITY. THE INDEMNITIES IN THIS AGREEMENT ARE SPECIFICALLY INTENDED TO OPERATE AND BE APPLICABLE EVEN IF IT IS ALLEGED OR PROVED THAT ALL OR SOME OF THE DAMAGES BEING SOUGHT WERE CAUSED IN WHOLE OR IN PART BY ANY ACT, ERROR, OMISSION, NEGLIGENCE, GROSS NEGLIGENCE, INTENTIONAL CONDUCT, BREACH OF CONTRACT, BREACH OF WARRANTY, VIOLATION OF STATUTE OR COMMON LAW, VIOLATIONS OF THE STATE OR FEDERAL CONSTITUTIONS, OR ANY OTHER CONDUCT WHATSOEVER OF THE CITY INDEMNIFIED**

**PARTIES, WITH THE EXCEPTION THAT IF A COURT OF LAW ADJUDICATES THAT ALL OF THE DAMAGES WERE BASED ON THE CITY'S CONDUCT THE CITY SHALL ONLY BE LIABLE FOR ANY DAMAGES AS DETERMINED BY A COURT OF LAW TO BE CAUSED BY THE CITY. COMPANY SHALL USE LEGAL COUNSEL REASONABLY ACCEPTABLE TO THE CITY IN CARRYING OUT ITS OBLIGATIONS HEREUNDER. THE PROVISIONS OF THIS SECTION SHALL SURVIVE THE EXPIRATION OR EARLY TERMINATION OF THIS AGREEMENT. THE PROVISIONS OF THIS SECTION SHALL SURVIVE THE EXPIRATION OR EARLY TERMINATION OF THIS AGREEMENT. THIS INDEMNIFICATION IS NOT INTENDED TO APPLY TO CLAIMS MADE AGAINST THE CITY BY INDEMNIFIED PARTIES RESULTING FROM NEGLIGENT ACTS OF CITY EMPLOYEES COVERED UNDER SECTION 101.021 OF THE TEXAS CIVIL PRACTICE AND REMEDIES CODE.**

The parties hereby acknowledge and agree that CITY is entering this Agreement pursuant to its governmental function and that nothing contained in this Agreement shall be construed as constituting a waiver of the CITY'S governmental immunity from suit or liability, which is expressly reserved to the extent allowed by law. Notwithstanding anything to the contrary herein, the parties hereby acknowledge and agree that to the extent this Agreement is subject to the provisions of Subchapter I of Chapter 271, TEXAS LOCAL GOVERNMENT CODE, as amended, the CITY'S immunity from suit ls waived only as set forth in Subchapter I of Chapter 271, TEXAS LOCAL GOVERNMENT CODE. Further, the parties agree that this agreement is made subject to all applicable provisions of the Texas Civil Practices and Remedies Code ("CPRC"), including but not limited to all defenses, limitations, and exceptions to the limited waiver of Immunity from liability provided in Chapter 101 and Chapter 75.

**COMPANY AGREES THAT IT WILL INDEMNIFY AND SAVE CITY HARMLESS FROM ALL CLAIMS GROWING OUT OF ANY DEMANDS OF SUBCONTRACTORS, LABORERS, WORKMEN, MECHANICS, MATERIALMEN, AND FURNISHERS OF MACHINERY AND PARTS THEREOF, EQUIPMENT, POWER TOOLS AND ALL SUPPLIES, INCURRED IN THE FURTHERANCE OF THE PERFORMANCE OF THIS AGREEMENT. WHEN CITY SO DESIRES, COMPANY SHALL FURNISH SATISFACTORY EVIDENCE THAT ALL OBLIGATIONS OF THE NATURE HEREINABOVE DESIGNATED HAVE BEEN PAID, DISCHARGED OR WAIVED. COMPANY, ITS SURETIES AND INSURANCE CARRIERS SHALL DEFEND, INDEMNIFY AND SAVE HARMLESS CITY AND ALL OF ITS OFFICERS,**

**AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, OR CLAIMS OF ANY CHARACTER WHATSOEVER, BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ARISING FROM ANY ACT OF COMPANY OR ANY SUBCONTRACTOR, THEIR AGENTS OR EMPLOYEES, IN THE EXECUTION AND SUPERVISION OF THIS AGREEMENT, AND WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST CITY OR ANY OF ITS OFFICERS, AGENTS, OR EMPLOYEES INCLUDING ATTORNEY'S FEES. THE OBLIGATIONS CONTAINED IN THIS SECTION XV SHALL SURVIVE THE TERMINATION OF THIS AGREEMENT.**

## ARTICLE XVI. LIMITATION OF LIABILITY

**IN NO EVENT SHALL COMPANY, ITS EMPLOYEES, CONTRACTORS, DIRECTORS, AFFILIATES AND/OR AGENTS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, SUCH AS, BUT NOT LIMITED TO, DELAY, LOST DATA, DISRUPTION, AND LOSS OF ANTICIPATED PROFITS OR REVENUE ARISING FROM OR RELATED TO THE SERVICES, WHETHER LIABILITY IS ASSERTED IN CONTRACT OR TORT, AND WHETHER OR NOT COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF ANY SUCH LOSS OR DAMAGE. IN ADDITION, COMPANY'S TOTAL LIABILITY HEREUNDER, INCLUDING REASONABLE ATTORNEYS' FEES AND COSTS, SHALL IN NO EVENT EXCEED AN AMOUNT EQUAL TO FOUR TIMES THE FEES DESCRIBED IN EXHIBIT B. THE FOREGOING SETS FORTH THE CITY'S EXCLUSIVE REMEDY FOR CLAIMS ARISING FROM OR OUT OF THIS AGREEMENT.**

**IN NO EVENT SHALL CITY, ITS EMPLOYEES, CONTRACTORS, DIRECTORS, AFFILIATES AND/OR AGENTS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, SUCH AS, BUT NOT LIMITED TO, DELAY, LOST DATA, DISRUPTION, AND LOSS OF ANTICIPATED PROFITS OR REVENUE ARISING FROM OR RELATED TO THE SERVICES, WHETHER LIABILITY IS ASSERTED IN CONTRACT OR TORT, AND WHETHER OR NOT CITY HAS BEEN ADVISED OF THE POSSIBILITY OF ANY SUCH LOSS OR DAMAGE. IN**

**ADDITION, CITY'S TOTAL LIABILITY HEREUNDER, INCLUDING REASONABLE ATTORNEYS' FEES AND COSTS, SHALL IN NO EVENT EXCEED AN AMOUNT EQUAL TO THE FEES DESCRIBED IN EXHIBIT B. THE FOREGOING SETS FORTH THE COMPANY'S EXCLUSIVE REMEDY FOR CLAIMS ARISING FROM OR OUT OF THIS AGREEMENT.**

**THE PROVISIONS OF THIS SECTION ALLOCATE THE RISKS BETWEEN COMPANY AND THE CITY AND COMPANY'S PRICING REFLECTS THE ALLOCATION OF RISK AND LIMITATION OF LIABILITY SPECIFIED HEREIN.**

*[Signature Page(s) Follows]*

EXECUTED IN DUPLICATE the day and year first above mentioned.

THE CITY OF MIDLAND, TEXAS

_____
Tommy Gonzalez, City Manager

ATTEST:

_____
Marcia Bentley-German, City Governance Officer/City Secretary

APPROVED AS TO FORM ONLY:

_____
John Ohnemiller, City Attorney

COMPANY:

By: _____

Name:_____

Title: _____

STATE OF _____ §
§
COUNTY OF _____§

BEFORE ME, the undersigned authority, on this ____ day of _____, 2023 personally appeared, _____, an officer of Avenu Insights & Analytics, LLC, known to me to be the person and official whose name is subscribed to the forgoing instrument, and acknowledged to me that he executed the same as the act and deed of said corporation, for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the __day of _____, 2023.

_____
Notary Public, State of

## EXHIBIT A – STATEMENT OF WORK

## A.1 SALES AND USE TAX COMPLIANCE REVIEW SERVICE ("SUTA-TX")

### Objectives and Methods

AVENU's Sales and Use Tax Compliance Review Service is designed to assist CLIENT in enhancing its sales and use tax revenues by detecting, documenting, and correcting sales and use tax errors thereby producing previously unrealized revenue for CLIENT.

### Statement of Work

In providing the Sales and Use Tax Compliance Review Service, AVENU shall:

- Meet with CLIENT's designated staff to review service objectives, scope, procedures, coordination of effort, work plan schedule, public relations, and logistical matters.
- Establish an appropriate liaison with the CLIENT and define logical checkpoints for reviewing progress.
- Perform a review of the CLIENT's businesses' sales and/use tax remittances to ensure proper application of local sales and/ use tax law and achieve past and/or prospective compliance, as applicable.
- On behalf of the CLIENT, AVENU will assist the businesses, as needed, in preparing and filing amended returns and/or reallocation requests with the Comptroller's office to gain compliance. AVENU and/or the CLIENT may also provide additional documentation to the Comptroller's office to request its assistance in gaining compliance from taxpayers as needed.

### AVENU Deliverables

**Progress Reports**

AVENU will provide periodic progress reports to CLIENT in the form of status updates. AVENU's progress reports will identify errors detected, documented, and corrected.

### CLIENT Assistance

CLIENT shall assist AVENU by providing information and assistance necessary to perform the Sales and Use Tax Compliance Review to include, without limitation, the following:

- Providing AVENU historical sales and use tax information including confidentiality reports received from the Comptroller for past periods, if available.
- Issuing necessary documentation to the Comptroller to allow AVENU to access and receive detailed confidentiality reports monthly.
- Providing a letter of introduction identifying AVENU as an authorized agent of the CLIENT to perform the Sales and Use Tax Compliance Review and to receive and examine taxpayer records necessary to assure sales and Use tax compliance.
- Pursuing in good faith corrective action on errors detected by AVENU.
- Issuing necessary documentation to the Comptroller to correct errors validated by AVENU.

The parties agree that the CLIENT and/or the Comptroller retain exclusive authority and responsibility to administer, interpret and enforce the CLIENT's sales and use tax, recognizing that AVENU's role is limited to employing its unique expertise and proprietary tools for: i) detecting and documenting errors by taxpayers in the application, calculation, collection, and/or remittance of sales and use taxes and, ii) providing CLIENT with technical assistance, without assuming or being delegated the authority or responsibility of CLIENT to administer, interpret, and enforce its sales and use taxes.

## A.2 LOCAL OCCUPANCY TAX AUDIT SERVICE

### Objectives and Methods

AVENU's Local Occupancy Tax Audit Service is intended to assist the CLIENT in maximizing tax revenue it is entitled to through an examination of records and education of the lodging providers to ensure the appropriate collection and remittance of the occupancy tax.

### Statement of Work

**Audit Services**

- Perform examinations of the records of those providers requested by CLIENT to warrant further investigation.
- Provide CLIENT staff with a draft engagement announcement letter to be sent to each lodging provider requiring examination.
- In coordination with CLIENT staff, schedule, and conduct reviews at the property locations or remotely of those providers identified and authorized for examination.
- Verify accuracy of filed lodging tax returns with daily and monthly activity summaries.
- Review a random sample of the daily and monthly summaries to determine if the daily summaries reconcile to the monthly summaries if applicable.
- Review bank statements to verify that deposits reconcile with the reported revenue on the lodging tax returns if necessary.
- Review exempted revenue for proper qualifying documentation.
- Review a random sample of exempted guest revenue and trace registration and/or other source documents to verify compliance with the CLIENT ordinance.
- Where possible, compare the State lodging tax filings with CLIENT's tax returns.
- For each error/omission identified and confirmed, submit substantiating documentation to designated CLIENT staff to facilitate collection of revenue due from lodging providers for prior periods.
- Coordinate with designated CLIENT official(s) as necessary to review findings and recommendations.
- Prepare draft Notices of Deficiency Determination, commendation, and credit letters, as applicable, for CLIENT to advise lodging providers of examination results
- Provide assistance to CLIENT in reviewing any matters submitted in extenuation and mitigation by lodging providers in contesting a deficiency determination; and
- Prepare and document any changes to the review findings and provide revised tax amounts due to the CLIENT.

## AVENU Deliverables

**Audit Services**

- Provide CLIENT staff with a draft Audit Announcement Letter to be sent to each lodging provider to be examined.
- For each error/omission identified and confirmed, submit a written report substantiating documentation to designated CLIENT staff to facilitate collection of revenue due from lodging providers for prior periods together with draft Notices of Deficiency Determination, and/or credit, or commendation letters as applicable;
- Prepare and document any changes to the review findings and provide revised tax amounts due to the CLIENT.
- Review any extenuation or mitigation proffered to deficiency determinations and prepare draft response to CLIENT staff; and
- Provide other collections advice upon request.

## CLIENT Assistance

- The CLIENT shall agree to an audit plan stating the minimum number of audits to be started by year (See Exhibit B).
- Provide AVENU with the records of those taxpayers authorized by CLIENT for examination
- CLIENT agrees provide signed audit authorization letters on CLIENT letterhead as needed within thirty (30) days of request.
- CLIENT agrees to provide AVENU with its ordinances, codes, and tax rates within thirty (30) days of the effective date of the agreement, and notice of any changes thereafter in the ordinances, codes, and tax rates levied by the CLIENT.
- CLIENT agrees to timely sign subpoenas, as required.
- CLIENT agrees to timely sign and approve letters and notices, as required.

# A.3 FRANCHISE FEE COMPLIANCE REVIEW SERVICES

## Objectives and Methods

The CLIENT desires to have AVENU conduct a Franchise Fee Compliance Review ("Review") of the CLIENT's franchisees. The Reviews are an agreed-upon procedures review of the franchise fee payments made to the CLIENT from the franchisees. The entity, taxes and/or fees to be audited will be approved by CLIENT.

## Statement of Work

1. **Pre-Audit Planning -** To initiate the project, we recommend scheduling an introductory meeting with designated CLIENT management, to:
   - Identify the population of franchisees to be considered for examination.
   - Obtain copies of the ordinances and agreements governing each franchisee.

- Review with the CLIENT any known compliance issues or previous compliance activity, and any other factors, for example, any recent boundary changes, annexations, or rate changes, that might impact compliance.
- Identify relevant payment records available from the CLIENT.
- Develop a specific list of audit engagements authorized by the CLIENT.

2. **Schedule and Complete Audit Engagements -** Based on the list of approved engagements, we will proceed to contact those franchisees for which the CLIENT has approved audits. In preparing for and conducting its review of each franchisee, AVENU will employ the following procedures:
   - Obtain a letter of authorization from the CLIENT, copies of franchise agreements and any correspondence with the providers, and a history of franchise payments.
   - Obtain and review available documents, reports, work papers, and any prior reports prepared by the internal or external auditors, which concern the computation or methodologies for computing the franchise fee paid.
   - Submit a Request for Information to each franchisee to obtain the information needed to complete our review.
   - Review the work papers and supporting documentation used in the computation of the franchise fee payments.
   - Identify any revenues excluded from the franchise fee calculation:
   - Review and analyze all the franchisee revenue accounts in detail to determine revenues that are to be included or excluded from the franchise fee computations; review the revenues excluded from the computations, if any, and determine if they are permitted by the CLIENT's franchise agreement, or relevant state law.
   - If applicable, determine if franchisee or any of its subsidiaries receives any revenues from customers/subscribers or third parties for the use of utility's facilities located on CLIENT's right-of-way authorized by the franchise agreement that are not included in the franchise fee calculation used to determine the payment to the CLIENT.
   - If applicable, review the process used to compute franchise fees on meter diversion revenue for gas and electric providers.
   - If applicable, evaluate the franchisee's treatment of natural gas and electric self-consumed within its facilities located within the CLIENT's jurisdiction.
   - Analyze the number of customers/subscribers reported in the CLIENT's jurisdiction by rate classification and obtain and review the franchisee's procedures to code new customers/subscribers to the proper jurisdictions and the procedures used to address annexations.
   - Obtain and review the list of exempted customers/subscribers, if any, from the franchise fee computation.
   - Compare customer/subscriber address data for each franchisee with address data to be provided by the CLIENT to determine whether any residents and businesses currently within the boundaries of the CLIENT have been or are being serviced/invoiced without remittance of the appropriate tax or payment to the CLIENT.
   - Sample test the franchisee's billings for completeness and accuracy and verify that all monies collected are submitted to the CLIENT.

- Compare the franchisee's payments, exclusions, and other computations as related to the franchise agreement, or relevant state law. Compare the actual payments made to the CLIENT for timeliness and accuracy.

## AVENU Deliverables

**Reports/Deliverables**
Throughout the course of the engagement, we will produce reports for each franchisee documenting the following:

- Accomplishments to date.
- Next-step options and timeline for completion.
- Open items needing attention, with identification of the responsible party.
- Updates on issues requiring CLIENT attention.
- Review findings with franchisee and obtain the franchisee's position on the findings. Findings will include electronic format data of all exceptions in formats required by utilities.
- Prepare a written report with findings that describe and explain the results of our review, identifying residents and businesses that, for whatever reason, are not paying the appropriate level of taxes, potential additional monies due to the CLIENT, and any applicable penalties and interest.

AVENU will schedule a final presentation for each franchisee of these findings with the CLIENT.

**Implementation**

- Provide any necessary schedules and supporting documents to assist the CLIENT in collecting underpaid or unpaid franchise fees.
- Provide ongoing assistance in implementing findings with applicable franchisees.
- On an ongoing basis, work with the CLIENT and applicable franchisees to implement those findings and recommendations authorized by the CLIENT for further action.
- Conduct a post implementation review to ensure that the requested changes have been implemented by the franchisee.

**Suggested Schedule**
AVENU will begin scheduling audit examinations within thirty (30) days of the execution or Effective Date of the Agreement with the CLIENT. Although we can assure the CLIENT of sufficient auditing resources to initiate audits without delay on AVENU's part, the actual start date and time to completion for any given engagement will depend to some extent on the timely cooperation of the franchisee being audited, including timeliness of source document provision, response to inquiries, and quality and completeness of data provided; as well as the complexity of the audit itself, and the time required to resolve any issues that the franchisee may raise regarding the results reported.

The following is AVENU's suggested project timeline:

- Commencement of the work: within ten (10) working days of a fully executed agreement and the required letter of authorization and other documents from the CLIENT.

- Review of Franchise fee payment: within ten (10) working days of receipt of necessary data, such as franchise payment history, from the provider and the CLIENT.
- Completion of the final report: within four (4) to six (6) months (depending on factors noted above, the number of franchisees to be audited, and whether the CLIENT prefers to proceed with audits one-by-one, or concurrently).
- Throughout the project, we will provide the CLIENT with progress reports as applicable. Upon completion of each audit, we will issue a draft report to the CLIENT noting the findings. After the CLIENT's review and approval, we will issue a final report.

## CLIENT Assistance

- The CLIENT shall agree to an audit plan stating the minimum number of audits to be started by year in Exhibit B.
- Provide AVENU with a letter of authorization from the CLIENT.
- Provide copies of the franchise agreements, amendments, and any subsequent agreements relating to franchise fee collection.
- Provide any prior reports prepared by the internal or external auditors which concern the computation or methodologies for computing franchise fee.
- Provide a history of franchise payments made by providers to the CLIENT.
- AVENU will request an electronic copy of address ranges, annexations, and any border changes if applicable and/or available.
- The CLIENT will designate a representative to review the reports and presentations discussed above.

## EXHIBIT B – COMPENSATION SCHEDULE

### B.1 SALES AND USE TAX COMPLIANCE REVIEW SERVICE ("SUTA-TX")

The CLIENT shall pay AVENU a thirty five percent (35%) contingency fee for the Sales and Use Tax Compliance Review Service. The fee applies to the sales/use tax revenue received by the CLIENT from correction of taxpayer reporting errors detected and documented by the Sales Tax Compliance Review. The Contingency Fee applies to both: (a) past compliance (as applicable) – sales/use tax revenues received by the CLIENT from prior periods; and (b) prospective compliance (as applicable) -- incremental increase in sales/use tax revenues received for the first eight consecutive reporting quarters twenty-four (24) months following correction of the errors and confirmation of receipt of revenue by the CLIENT. An incremental increase is calculated as the current month's correct tax remittance less the monthly average of the prior twelve (12) months immediately prior to the first month of correct tax remittance.

AVENU will invoice CLIENT quarterly based on past and/or prospective compliance secured on behalf of CLIENT. Invoices are due and payable upon receipt.

All expenses incurred by AVENU in providing the Sales/Use Tax Compliance Review are the sole and exclusive responsibility of AVENU, except those expenses that receive prior written approval by CLIENT.

**Completion of Services**

Notwithstanding anything else in this Agreement, to the contrary, the CLIENT will pay AVENU per the terms of this Agreement for services begun before termination or expiration of the Agreement even if the monies are received after termination or expiration. AVENU will provide CLIENT with a list of taxpayer accounts submitted but not yet corrected as of the expiration or termination within a reasonable time after the expiration or termination ("completion list"). AVENU can continue working those taxpayer accounts on the completion list for a reasonable time to obtain a correction.

### B.2 LOCAL OCCUPANCY TAX AUDIT SERVICES

The CLIENT shall pay AVENU the following fixed fees listed below for Local Occupancy Tax Audit Services for each lodging property audited with 50% due at the time of audit approval and 50% upon completion of the audit. A minimum audit of 20% of the annual property count must be performed each year.

**Hotel Audits**

Year 1 $2,000

Year 2 $2,100

Year 3 $2,200

Year 4 $2,300

Year 5 $2,400

## B.3 FRANCHISE FEE COMPLIANCE REVIEW SERVICES

AVENU's compensation for the Franchise Fee Compliance Review Services shall be a Thirty-five (35%) contingency fee. The contingency fee shall apply to revenue received by the CLIENT as a result of deficiencies identified in the review and shall include any eligible prior period revenues together with all applicable penalties, interest, and late charges. The CLIENT agrees to use reasonable and diligent efforts to collect deficiencies identified by AVENU.

For deficiencies otherwise deemed lawfully collectible but for which the CLIENT elects not to collect, the CLIENT shall notify AVENU of its election not to pursue ("waive") collection of said deficiencies. In such instances, AVENU's fee shall be converted from a contingent fee to an hourly rate of One Hundred Fifty Dollars ($150) per hour spent on the project to date or one-half (1/2) of the fee AVENU would have been entitled to but for the waived portion of the deficiency, whichever is greater, plus additional out-of-pocket expenses incurred in the audit.

## B.4 ADDITIONAL EXPENSES

**Travel and Out-of-Pocket**
CLIENT shall reimburse AVENU for reasonable travel and other out-of-pocket expenses associated with the performance of the field audits including but not limited to lodging, parking, mileage, per diem, etc. (Mileage and per diem shall be according to IRS regulations). Such reimbursement shall be billed incrementally.

**Additional Consulting**
CLIENT may request that AVENU provide additional consulting services at any time during the term of this Agreement. If AVENU and CLIENT agree on the scope of the additional consulting services requested, then AVENU shall provide the additional consulting on a Time and Materials basis. Depending on the personnel assigned to perform the work, standard hourly rates range from ninety dollars ($90) per hour to three-hundred fifty dollars ($350) per hour. These additional consulting services will be invoiced at least monthly based on actual time and expenses incurred.

# City Council Meeting

**Item Number:** 16

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Justine Ruff, Director

**Subject:** **MOTION AUTHORIZING THE EXECUTION OF A 2024 ROUTINE AIRPORT MAINTENANCE PROGRAM AGREEMENT BETWEEN THE CITY OF MIDLAND, TEXAS, AND THE TEXAS DEPARTMENT OF TRANSPORTATION TO RECEIVE FUNDS IN THE AMOUNT OF $100,000.00 FOR CERTAIN MAINTENANCE AND IMPROVEMENTS AT MIDLAND AIRPARK (DISTRICT 4) (AIRPORTS)**

---

**Purpose:**
Motion authorizing the execution of a 2024 Routine Airport Maintenance Program (RAMP) Agreement between the City of Midland, Texas and Texas Department of Transportation (TxDOT).

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

$11,111.11 - Airport Funds
$100,000.00 - TxDOT RAMP Funds

**Appropriations Language:**
Funding is available in the Airport Fund Unappropriated Fund Balance and is hereby appropriated and will be transferred to a project for stated purpose.

**Discussion:**
The RAMP Grant, in the amount of $111,111.11, can be used on “lower cost” airside and landside improvements. In the past, the Department of Airports has used the Grant for the cost of the AWOS (Automated Weather Observing System) maintenance at Midland Airpark and grubbing the airfield. The RAMP Grant can also be used for various general maintenance items

at Airpark, including pavement crack sealing, pavement markings, drainage maintenance, mesquite tree eradication, repair and maintenance of Airport lighting, etc. at a 90/10 match for TxDOT and the Department of Airports. Work shall be accomplished by August 31, 2024, unless otherwise approved by the State.



City Manager's Office

**TEXAS DEPARTMENT OF TRANSPORTATION**
**GRANT FOR ROUTINE AIRPORT MAINTENANCE PROGRAM**

**(State Assisted Airport Routine Maintenance)**

**TxDOT Project ID: M2406MDLN**

## Part I - Identification of the Project

TO: The City of Midland, Texas

FROM: The State of Texas, acting through the Texas Department of Transportation

This Grant is made between the Texas Department of Transportation, (hereinafter referred to as the "State"), on behalf of the State of Texas, and the City of Midland, Texas, (hereinafter referred to as the "Sponsor").

This Grant Agreement is entered into between the State and Sponsor shown above, under the authority granted and in compliance with the provisions of the Transportation Code Chapter 21.

The project is for **airport maintenance** at the MIDLAND - MIDLAND AIRPARK Airport.

## Part II - Offer of Financial Assistance

1. For the purposes of this Grant, the annual routine maintenance project cost, Amount A, is estimated as found on Attachment A, Scope of Services, attached hereto and made a part of this grant agreement.

   State financial assistance granted will be used solely and exclusively for airport maintenance and other incidental items as approved by the State. Actual work to be performed under this agreement is found on Attachment A, Scope of Services. State financial assistance, Amount B, will be for ninety percent (90%) of the eligible project costs for this project or $100,000.00, whichever is less, per fiscal year and subject to availability of state appropriations.

   Scope of Services, Attachment A, of this Grant, may be amended, subject to availability of state funds, to include additional approved airport maintenance work. Scope amendments require submittal of an Amended Scope of Services, Attachment A.

   Services will not be accomplished by the State until receipt of Sponsor's share of project costs.

**Only work items as described in Attachment A, Scope of Services of this Grant are reimbursable under this grant.**

Work shall be accomplished by August 31, 2024, unless otherwise approved by the State.

2. The State shall determine fair and eligible project costs for work scope. Sponsor's share of estimated project costs, Amount C, shall be as found on Attachment A and any amendments.

   It is mutually understood and agreed that if, during the term of this agreement, the State determines that there is an overrun in the estimated annual routine maintenance costs, the State may increase the grant to cover the amount of the overrun within the above stated percentages and subject to the maximum amount of state funding.

   The State will not authorize expenditures in excess of the dollar amounts identified in this Agreement and any amendments, without the consent of the Sponsor.

3. Sponsor, by accepting this Grant certifies and, upon request, shall furnish proof to the State that it has sufficient funds to meet its share of the costs. The Sponsor grants to the State the right to audit any books and records of the Sponsor to verify expended funds.

   Upon execution of this Agreement and written demand by the State, the Sponsor's financial obligation (Amount C) shall be due in cash and payable in full to the State. State may request the Sponsor's financial obligation in partial payments. Should the Sponsor fail to pay their obligation, either in whole or in part, within 30 days of written demand, the State may exercise its rights under Paragraph V-3. Likewise, should the State be unwilling or unable to pay its obligation in a timely manner, the failure to pay shall be considered a breach and the Sponsor may exercise any rights and remedies it has at law or equity.

   The State shall reimburse or credit the Sponsor, at the financial closure of the project, any excess funds provided by the Sponsor which exceed Sponsor's share (Amount C).

4. The Sponsor specifically agrees that it shall pay any project costs which exceed the amount of financial participation agreed to by the State. It is further agreed that the Sponsor will reimburse the State for any payment or payments made by the State which are in excess of the percentage of financial assistance (Amount B) as stated in Paragraph II-1.

5. Scope of Services may be accomplished by State contracts or through local contracts of the Sponsor as determined appropriate by the State. All locally contracted work must be approved by the State for scope and reasonable cost. Reimbursement requests for locally contracted work shall be submitted on forms provided by the State and shall include copies of the invoices for materials or services. Payment shall be made for no more than 90% of allowable charges.

   The State will not participate in funding for force account work conducted by the Sponsor.

6. This Grant shall terminate upon completion of the scope of services.

## Part III - Additional Requirements for Certain Equipment

1. Certain purchase, installation, and subscription costs for eligible air traffic and operations monitoring equipment ("Equipment") are reimbursable as provided in this Part. If Grantee is seeking reimbursement for eligible Equipment costs, it must be shown in Attachment A.

2. For eligible Equipment, the State will reimburse 90% of the initial cost to purchase and install, not to exceed $3,000.00, and 90% of the annual subscription fee for subsequent years, not to exceed $3,000.00 per year.

3. Notwithstanding Section 2, for the one year prior to a master plan or airport layout plan update, TxDOT will reimburse up to 90% of the eligible costs, not to exceed $5,400.00.

4. Eligibility Requirements

   A. The Equipment must include the following items, at a minimum;

      1. Triangulation

      2. Noise abatement

      3. Aircraft tracking data for 30 days

      4. Direct installation without a third party

      5. Identification of pavement utilization by airplane design group for the entire airport

      6. 1 second and 3 foot accuracy

      7. Equal effectiveness at both towered and non-towered airports

      8. Tracking of military and government aircraft, including FAA blocked aircraft

   B. In order for costs to be eligible for RAMP reimbursement:

      1. The Sponsor must maintain and operate the Equipment for 3 years.

      2. On at least a quarterly basis, the Sponsor must provide to the State all data produced and collected by the Equipment.

      3. To be eligible for reimbursement of the annual subscription fee after the first year, the Sponsor must participate in the Routine Airport

Maintenance Program, have an executed Grant Agreement for that year, and comply with all grant requirements.

A. The State may conduct on-site or off-site monitoring reviews of the Equipment during the initial required 3-year term, and during any years Sponsor seeks reimbursement of subscription costs. The Sponsor shall fully cooperate with the State and provide any required documentation. The Sponsor shall grant full access to the Equipment to the State or its authorized designee for the purpose of determining compliance, including, but not limited to:

1. Whether the Equipment, and its operation and maintenance, are consistent with the requirements set forth in the Grant Agreement and this First Amendment;

2. Whether the Sponsor is making timely progress with installation of the Equipment, and whether its management, financial management and control systems, procurement systems and methods, and overall performance are in conformance with the requirements set forth in the Grant Agreement and this First Amendment, and are fully and accurately reflected in reports submitted to the State.

B. Failure to maintain compliance with these requirements may result in the Sponsor having to repay grant funds to the State.

## Part IV - Sponsor Responsibilities

1. In accepting this Grant, if applicable, the Sponsor guarantees that:

a. it will, in the operation of the facility, comply with all applicable state and federal laws, rules, regulations, procedures, covenants and assurances required by the State in connection with this Grant; and

b. the Airport or navigational facility which is the subject of this Grant shall be controlled by the Sponsor for a period of at least 20 years; and

c. consistent with safety and security requirements, it shall make the airport or air navigational facility available to all types, kinds and classes of aeronautical use without discrimination between such types, kinds and classes and shall provide adequate public access during the period of this Grant; and

d. it shall not grant or permit anyone to exercise an exclusive right for the conduct of aeronautical activity on or about an airport landing area. Aeronautical activities include, but are not limited to scheduled airline flights, charter flights, flight instruction, aircraft sales, rental and repair, sale of aviation petroleum products and aerial applications. The landing area consists of runways or landing strips,

taxiways, parking aprons, roads, airport lighting and navigational aids; and

e. through the fence access shall be reviewed and approved by the State; and

f. it shall not permit non-aeronautical use of airport facilities, unless noted on an approved Airport Layout Plan, without prior approval of the State/FAA. This includes but is not limited to: the process of land disposal, any changes to the aeronautical or non-aeronautical land uses of the airport, land's deeded use from non-aeronautical to aeronautical, requests of concurrent use of land, interim use of land, approval of a release from obligations from the State/FAA, any of which will require 18 months, or longer; and

g. the Sponsor shall submit to the State annual statements of airport revenues and expenses when requested; and

h. all fees collected for the use of the airport shall be reasonable and nondiscriminatory. The proceeds from such fees shall be used solely for the development, operation and maintenance of the airport or navigational facility; and

i. an Airport Fund shall be established by resolution, order or ordinance in the treasury of the Sponsor, or evidence of the prior creation of an existing airport fund or a properly executed copy of the resolution, order, or ordinance creating such a fund, shall be submitted to the State. The fund may be an account as part of another fund, but must be accounted for in such a manner that all revenues, expenses, retained earnings, and balances in the account are discernible from other types of moneys identified in the fund as a whole. All fees, charges, rents, and money from any source derived from airport operations must be deposited in the Airport Fund and shall not be diverted to the general revenue fund or any other revenue fund of the Sponsor. All expenditures from the Airport Fund shall be solely for airport purposes. Sponsor shall be ineligible for a subsequent grant or loan by the State unless, prior to such subsequent approval of a grant or loan, Sponsor has complied with the requirements of this subparagraph; and

j. the Sponsor shall operate runway lighting at least at low intensity from sunset to sunrise; and

k. insofar as it is reasonable and within its power, Sponsor shall adopt and enforce zoning regulations to restrict the height of structures and use of land adjacent to or in the immediate vicinity of the airport to heights and activities compatible with normal airport operations as provided in Tex. Loc. Govt. Code Ann. Sections 241.001 et seq. (Vernon and Vernon Supp.). Sponsor shall also acquire and retain aviation easements or other property interests in or rights to use of land or airspace, unless sponsor can show that acquisition and retention of such interest will be impractical or will result in undue hardship to Sponsor. Sponsor shall be ineligible for a subsequent grant or loan by the State unless Sponsor has, prior to subsequent approval of a grant or loan, adopted and passed an airport hazard zoning ordinance

or order approved by the State.

l. mowing services will not be eligible for state financial assistance. Sponsor will be responsible for 100% of any mowing services.

2. The Sponsor, to the extent of its legal authority to do so, shall save harmless the State, the State's agents, employees or contractors from all claims and liability due to activities of the Sponsor, the Sponsor's agents or employees performed under this agreement. The Sponsor, to the extent of its legal authority to do so, shall also save harmless the State, the State's agents, employees or contractors from any and all expenses, including attorney fees which might be incurred by the State in litigation or otherwise resisting claim or liabilities which might be imposed on the State as the result of those activities by the Sponsor, the Sponsor's agents or employees.

3. The Sponsor's acceptance of this Offer and ratification and adoption of this Grant shall be evidenced by execution of this Grant by the Sponsor. The Grant shall comprise a contract, constituting the obligations and rights of the State of Texas and the Sponsor with respect to the accomplishment of the project and the operation and maintenance of the airport.

   If it becomes unreasonable or impractical to complete the project, the State may void this agreement and release the Sponsor from any further obligation of project costs.

4. Upon entering into this Grant, Sponsor agrees to name an individual, as the Sponsor's Authorized Representative, who shall be the State's contact with regard to this project. The Representative shall receive all correspondence and documents associated with this grant and shall make or shall acquire approvals and disapprovals for this grant as required on behalf of the Sponsor, and coordinate schedule for work items as required.

5. By the acceptance of grant funds for the maintenance of eligible airport buildings, the Sponsor certifies that the buildings are owned by the Sponsor. The buildings may be leased but if the lease agreement specifies that the lessee is responsible for the upkeep and repairs of the building no state funds shall be used for that purpose.

6. Sponsor shall request reimbursement of eligible project costs on forms provided by the State. All reimbursement requests are required to include a copy of the invoices for the materials or services. The reimbursement request will be submitted no more than once a month.

7. The Sponsor's acceptance of this Agreement shall comprise a Grant Agreement, as provided by the Transportation Code, Chapter 21, constituting the contractual obligations and rights of the State of Texas and the Sponsor with respect to the accomplishment of the airport maintenance and compliance with the assurances and conditions as provided. Such Grant Agreement shall become effective upon the State's written Notice to Proceed issued following execution of this agreement.

## PART V - Nomination of the Agent

1. The Sponsor designates the State as the party to receive and disburse all funds used, or to be used, in payment of the costs of the project, or in reimbursement to either of the parties for costs incurred.

2. The State shall, for all purposes in connection with the project identified above, be the Agent of the Sponsor. The Sponsor grants the State a power of attorney to act as its agent to perform the following services:

   a. accept, receive, and deposit with the State any and all project funds granted, allowed, and paid or made available by the Sponsor, the State of Texas, or any other entity;

   b. enter into contracts as necessary for execution of scope of services;

   c. if State enters into a contract as Agent: exercise supervision and direction of the project work as the State reasonably finds appropriate. Where there is an irreconcilable conflict or difference of opinion, judgment, order or direction between the State and the Sponsor or any service provider, the State shall issue a written order which shall prevail and be controlling;

   d. receive, review, approve and pay invoices and payment requests for services and materials supplied in accordance with the State approved contracts;

   e. obtain an audit as may be required by state regulations; the State Auditor may conduct an audit or investigation of any entity receiving funds from TxDOT directly under this contract or indirectly through a subcontract under this contract. Acceptance of funds directly under this contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the State Auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

   f. reimburse sponsor for approved contract maintenance costs no more than once a month.

## PART VI - Recitals

1. This Grant is executed for the sole benefit of the contracting parties and is not intended or executed for the direct or incidental benefit of any third party.

2. It is the intent of this grant to not supplant local funds normally utilized for airport maintenance, and that any state financial assistance offered under this grant be in addition to those local funds normally dedicated for airport maintenance.

3. This Grant is subject to the applicable provisions of the Transportation Code, Chapters 21 and 22, and the Airport Zoning Act, Tex. Loc. Govt. Code Ann. Sections 241.001 et seq. (Vernon and Vernon Supp.). Failure to comply with the terms of this Grant or with the rules and statutes shall be considered a breach of this contract and will allow the State to pursue the remedies for breach as stated below.

   a. Of primary importance to the State is compliance with the terms and conditions of this Grant. If, however, after all reasonable attempts to require compliance have failed, the State finds that the Sponsor is unwilling and/or unable to comply with any of the terms of this Grant, the State, may pursue any of the following remedies: (1) require a refund of any financial assistance money expended pursuant to this Grant, (2) deny Sponsor's future requests for aid, (3) request the Attorney General to bring suit seeking reimbursement of any financial assistance money expended on the project pursuant to this Grant, provided however, these remedies shall not limit the State's authority to enforce its rules, regulations or orders as otherwise provided by law, (4) declare this Grant null and void, or (5) any other remedy available at law or in equity.

   b. Venue for resolution by a court of competent jurisdiction of any dispute arising under the terms of this Grant, or for enforcement of any of the provisions of this Grant, is specifically set by Grant of the parties in Travis County, Texas.

4. The State reserves the right to amend or withdraw this Grant at any time prior to acceptance by the Sponsor. The acceptance period cannot be greater than 30 days after issuance unless extended by the State.

5. This Grant constitutes the full and total understanding of the parties concerning their rights and responsibilities in regard to this project and shall not be modified, amended, rescinded or revoked unless such modification, amendment, rescission or revocation is agreed to by both parties in writing and executed by both parties.

6. All commitments by the Sponsor and the State are subject to constitutional and statutory limitations and restrictions binding upon the Sponsor and the State (including Sections 5 and 7 of Article 11 of the Texas Constitution, if applicable) and to the availability of funds which lawfully may be applied.

## Part VII - Acceptances

### Sponsor

The City of Midland, Texas, does ratify and adopt all statements, representations, warranties, covenants, agreements, and all terms and conditions of this Grant.

Executed this _____ day of _____, 20___.

The City of Midland, Texas
Sponsor

_____
Sponsor Signature

_____
Sponsor Title

**Acceptance of the State**

Executed by and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs and grants heretofore approved and authorized by the Texas Transportation Commission.

STATE OF TEXAS
TEXAS DEPARTMENT OF TRANSPORTATION

By:_____

Date:_____

**Attachment A**
**Scope of Services**
**TxDOT Project ID: M2406MDLN**

| Eligible Scope Item: | Estimated Costs Amount A | State Share Amount B | Sponsor Share Amount C |
|---|---|---|---|
| **GENERAL MAINTENANCE** | $111,111.11 | $100,000.00 | $11,111.11 |
| **Special Project** | $0.00 | $0.00 | $0.00 |
| **Special Project** | $0.00 | $0.00 | $0.00 |
| **Special Project** | $0.00 | $0.00 | $0.00 |
| **Special Project** | $0.00 | $0.00 | $0.00 |
| **Special Project** | $0.00 | $0.00 | $0.00 |
| | | | |
| **TOTAL** | $111,111.11 | $100,000.00 | $11,111.11 |

Accepted by: The City of Midland, Texas

_____
Signature

Title: _____

Date: _____

GENERAL MAINTENANCE: As needed, Sponsor may contract for services/purchase materials for routine maintenance/improvement of airport pavements, signage, drainage, AWOS systems, approach aids, lighting systems, utility infrastructure, fencing, herbicide/application, sponsor owned and operated fuel systems, hangars, terminal buildings and security systems; professional services for environmental compliance, approved project design. Special projects to be determined and added by amendment.

Airport Operations Counting Systems: The purchase and installation of specified air traffic and operations monitoring equipment ("Equipment") is eligible for reimbursement as provided in Part III

**Only work items as described in Attachment A, Scope of Services of this Grant are reimbursable under this grant.**

## CERTIFICATION OF AIRPORT FUND

TxDOT Project ID: M2406MDLN

The City of Midland does certify that an Airport Fund has been established for the Sponsor, and that all fees, charges, rents, and money from any source derived from airport operations will be deposited for the benefit of the Airport Fund and will not be diverted for other general revenue fund expenditures or any other special fund of the Sponsor and that all expenditures from the Fund will be solely for airport purposes. The fund may be an account as part of another fund, but must be accounted for in such a manner that all revenues, expenses, retained earnings, and balances in the account are discernible from other types of moneys identified in the fund as a whole.

The City of Midland, Texas
(Sponsor)

By: _____

Title: _____

Date: _____

### Certification of State Single Audit Requirements

I, _____, do certify that the City of Midland will comply with all
(Designated Representative)
requirements of the State of Texas Single Audit Act if the City of Midland spends or receives more than the threshold amount in any grant funding sources during the most recently audited fiscal year. And in following those requirements, the City of Midland will submit the report to the audit division of the Texas Department of Transportation. If your entity did not meet the threshold in grant receivables or expenditures, please submit a letter indicating that your entity is not required to have a State Single Audit performed for the most recent audited fiscal year.

_____
Signature

_____
Title

_____
Date

**DESIGNATION OF SPONSOR'S AUTHORIZED REPRESENTATIVE**

TxDOT Project ID: M2406MDLN

The City of Midland designates, _____
(Name, Title)
as the Sponsor's authorized representative, who shall receive all correspondence and documents associated with this grant and who shall make or shall acquire approvals and disapprovals for this grant as required on behalf of the Sponsor.

The City of Midland, Texas
(Sponsor)

By: _____

Title: _____

Date: _____

**DESIGNATED REPRESENTATIVE**

Mailing Address: _____

_____

_____

Overnight Mailing Address: _____

_____

_____

Telephone/Fax Number: _____

_____

Email address: _____

# City Council Meeting

**Item Number:** 17

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Justine Ruff, Director

**Subject:** **RESOLUTION APPROVING THE PURCHASE OF FURNITURE AND ASSOCIATED EQUIPMENT FOR THE MIDLAND INTERNATIONAL AIR & SPACE PORT TERMINAL BUILDING FROM SEWCO, INC., DBA OFFICEWISE FURNITURE AND EQUIPMENT THROUGH THE INTERLOCAL PURCHASING SYSTEM AND OMNIA PARTNERS FOR A TOTAL COST OF $203,927.33 (DISTRICT 4) (AIRPORTS)**

---

**Purpose:**

Resolution approving the purchase of furniture and associated equipment for Midland International Air & Space Port from SEWCO, INC., DBA OFFICEWISE Furniture and Equipment through OMNIA Partners and Interlocal Purchasing System for a total cost of $203,927.33.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

Funding is available in the Multi-Facility Rehabilitation Project (#900308).

**Discussion:**

The furniture in the Administration area of the Terminal is 25 years old and needs to be replaced. This purchase will replace the furniture in the Airport Administration Lobby, Media/Conference Room and some of the chairs in the Airport Operations Control Center, Airport Police, and individual offices. We received quotes through purchasing cooperatives as shown in Table 1 below:

| Table 1 Description | Company | Cooperative Purchasing Program | Cost |
|---|---|---|---|
| **Office Furniture** | Sewco, Inc. Dba Officewise Furniture & Equipment of Midland, Texas | Omnia | $54,573.56 |
| **Office Furniture** | Sewco, Inc. Dba Officewise Furniture & Equipment of Midland, Texas | Omnia | $78,274.45 |
| **Office Furniture** | Sewco, Inc. Dba Officewise Furniture & Equipment of Midland, Texas | Interlocal Purchasing System | $71,079.32 |
| | | **Total Cost** | **$203,927.33** |

The City of Midland is a member of each of the cooperatives shown in Table 1 and Subchapter F, Section 271.102 of the Local Government Code provides that a local government may participate in a cooperative purchasing program and that purchasing goods or services under Subchapter F satisfies any state law requiring the local government to seek competitive bids for those purchases. Therefore, please consider a resolution approving the purchasing of furniture for Midland International Air & Space Port as shown in Table 1 above for a total cost of $203,927.33.



City Manager's Office

**RESOLUTION NO. _____**

**RESOLUTION APPROVING THE PURCHASE OF FURNITURE AND ASSOCIATED EQUIPMENT FOR THE MIDLAND INTERNATIONAL AIR & SPACE PORT TERMINAL BUILDING FROM SEWCO, INC., DBA OFFICEWISE FURNITURE AND EQUIPMENT THROUGH THE INTERLOCAL PURCHASING SYSTEM AND OMNIA PARTNERS FOR A TOTAL COST OF $203,927.33**

**WHEREAS**, The Interlocal Purchasing System and Omnia Partners are cooperative purchasing agencies with which the City participates with on purchases through cooperative purchasing programs in accordance with TEX. LOC. GOV'T CODE § 271.102; and

**WHEREAS**, Sewco, Inc., dba Officewise Furniture and Equipment, has submitted a proposed costs to the City of $203,927.33 for the purchase of furniture and associated equipment for the Midland International Air & Space Port Terminal Building through The Interlocal Purchasing System and Omnia Partners, as shown on the quotes attached hereto as Exhibit A, which are incorporated herein for all purposes; and

**WHEREAS**, the Council finds the prices proposed by Sewco, Inc., dba Officewise Furniture and Equipment, through The Interlocal Purchasing System and Omnia Partners for the purchase of said furniture and associated equipment to be fair and reasonable; and

**WHEREAS**, the City Council finds it to be in the public interest to purchase said furniture and associated equipment from Sewco, Inc., dba Officewise Furniture and Equipment, through The Interlocal Purchasing System and Omnia Partners;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the City Manager is hereby authorized and directed to purchase furniture and associated equipment for the Midland International Air & Space Port Terminal Building from Sewco, Inc., dba Officewise Furniture and Equipment through The Interlocal Purchasing System and Omnia Partners for a total cost of $203,927.33.

**SECTION TWO.** That the City Comptroller is hereby authorized and directed to pay

Sewco, Inc., dba Officewise Furniture and Equipment for said furniture and associated equipment from funds available in the Multi-Facility Rehabilitation Project (900308) upon receipt of proper invoices or statements approved by the City Manager.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Justine Ruff, Director of Airports

APPROVED AS TO FORM ONLY:

_____
John Ohnemiller, City Attorney

# Exhibit A

Officewise

## Quotation

**Prepared For:** Justine Ruff
Midland International Airport
9506 La Force Blvd
Midland TX 79706
432-560-2200

**Date:** 10/18/2023

**Expires: 14 days**
***unless price increase occurs**

**Purchase Order Must Be Made To:**
Officewise Commercial Interiors
2310 W Michigan Ave. Midland, TX 79701
**Installation must be on a separate line.
***Email PO to mherrera@officewiseco.com

**Account Manager:** Larry Nelson
lnelson@officewiseco.com
Designer: Melissa Herrera
432-617-0095

NCPA 07-110

| Qty | Mfg | Description and Model Number | List | Sell | Ext Sell |
|---|---|---|---|---|---|
| 1 | | **SPECIAL FWCD-9036-PE-PEC·**<br>**Flow Buffet Height Credenza 90"W x 24"D x 36"H, *COM Solid Surface Top, Cradle Base, Laminate Case, Five Doors** | $12,744.00 | $7,391.52 | $7,391.52 |
| | | **SPC. TO ACCEPT .5" THICK CUSTOMER SUPPLIED - FIELD INSTALLED SOLID SURFACE<br>**DXF FILE NEEDED â€“ INCLUDED IN PRICE<br>**SPC. TO INCLUDE PULL OUT DRAWERS BEHIND ALL DOORS - SEE DV | | | |
| | | -COM SOLID SURFACE: Customer Supplied, Field Installed<br>-WOL OPT: Woodgrain Laminate Case (Grain Will Be Vertical)<br>-8846-58 LAM: Oiled Legno<br>-PED Laminate Doors (Matches Case)<br>~ Standard Powder Coat Base<br>-A44 METAL: Black Powder Coat<br>-LK OPT: Locks<br>~ No Equipment Rack (Defaults to Adjustable Shelf)<br>~ No Pull-Out Waste/Recycling Unit (Defaults to Adjustable Shelf) | | | |
| 12 | | **SPECIAL AGF-2660-FE-3MP**<br>**Agility, Rectangle Reconfigurable Table, 26"D x 60"W, Fixed Leg - Edge Mounted, Laminate Top with ABS Edge** | $4,602.00 | $2,669.16 | $32,029.92 |
| | | **SPC. TO INCLUDE MATCHING EDGEBAND TO FORMICA OILED LEGNC (1mm x 1-5/16")** | | | |
| | | -WOL Woodgrain Laminates<br>-8846-58 LAM: Oiled Legno<br>-*F8846 ABS EDGE: *Match to Formica Oiled Legno<br>-PM60 OPT: Painted Modesty Panel<br>~ ***Undecided Painted Modesty Panel***<br>~ Powder Coated Metal Leg<br>~ ***Undecided Metal Finish***<br>~ Glides (default)<br>-GCA OPT: Ganging Connectors<br>~ No Grommet Option (spec power separate)<br>~ No Plug Strip<br>~ No Modular Power | | | |
| 4 | | **SPECIAL APT-7236-PE-PA**<br>**Approach, Rectangle Nesting - Non-Grain Matched - Individual Tables, 72"L x 36"W, Laminate Top with ABS Edge, Painted Base** | $8,477.00 | $4,916.66 | $19,666.64 |
| | | **SPC. TO INCLUDE MATCHING EDGEBAND TO FORMICA OILED LEGNC (1mm x 1-5/16")** | | | |
| | | -WOL OPT: Woodgrain Laminates<br>-8846-58 LAM: Oiled Legno<br>-*F8846 ABS EDGE: *Match to Formica Oiled Legno<br>-S44 PAINTED BASE: Black<br>-PO METAL: Standard Powder Coat Leg<br>-A44 METAL: Black Powder Coat<br>~ Keep Ganging Connectors<br>~ Keep Modular Power | | | |

| | | | | | |
|---|---|---|---|---|---|
| 4 | **PM-SM-M**<br>**Power Matrix, Small - Metal Door, 5.75"W x 5.375"D, 15 amp, 36"L plug-in infeed** | | $1,418.00 | $822.44 | $3,289.76 |
| | -PS-X | OPT: One in each table | | | |
| | -D | OPT: Standard Metal Door | | | |
| | ~ | ***Undecided Standard Powder Coat or Clear Anodized Aluminum Finish*** | | | |
| | -B | OPT: Standard Metal Bezel | | | |
| | ~ | ***Undecided Standard Powder Coat or Clear Anodized Aluminum Finish*** | | | |
| | ~ | (2) Simplexes, (2) Blank AAP Plates, (1) Dual RJ-45 AAP Plate | | | |
| | ~ | No Field Wired | | | |
| 1 | **APP-P**<br>**Approach, Modular Power System, 20 Amp Plug-In Power In-Feed, (1) Circuit of the (2) Circuit System** | | $400.00 | $232.00 | $232.00 |
| 1 | **Solid Surface**<br>**Furnish the Staron Solid Surface Natural Bridge color # VN144 as per size and edge profile furnished. 90 inches long X 24 inches wide X ½ inch thick with 1/16 radius and polished edges. Includes material, fabrication, delivery to airport, and installed.** | | $0.00 | $2,569.48 | $2,569.48 |
| | | | | Ext. List: | $107,948.00 |
| | | | | **Subtotal:** | **$65,179.32** |
| | **Installation per contract:** | | $5,900.00 | $5,900.00 | $5,900.00 |

**Total List:** **$113,848.00**

**Total Sell:** **$71,079.32**

**Financing is available!**

**Furniture Project Payment Terms:**

**Special Order Furniture is non-returnable**

Design and Project Management Services: Hourly accrual of work performed, to be billed monthly - Rate: $75.00
Monthly Payment - billable hours based on work completed.
Payment due upon receipt of invoice - standard 15 day period
Furniture/Parts Order - 75% deposit due at time of order
Second Deposit due if product is stored beyond 30 days from time of receiving to our warehouse - 15% due.
Final balance due upon completion of delivery

**Review all furniture finishes prior to placing order**
Please review fabrics and finishes for accuracy before placing order. If fabric or finish samples are needed, please contact your sales representative at 432-617-0017. Once fabrics and finishes are approved, please sign below and include with Purchase Order.

X_____
Customer Signature - Date
I agree fabrics and finishes on this quote are accurate.
I understand special order furniture cannot be returned.

# Quotation

**Prepared For:** Justine Ruff
Midland International Airport
9506 La Force Blvd
Midland TX 79706
432-560-2200

**Date:** 10/6/2023

**Expires: 14 days**
***unless price increase occurs**

**Purchase Order Must Be Made To:**
Officewise Commercial Interiors
2310 W Michigan Ave. Midland, TX 79701
**Installation must be on a separate line.
***Email PO to mherrera@officewiseco.com

**Account Manager:** Larry Nelson
lnelson@officewiseco.com
Designer: Melissa Herrera
432-617-0095

NOF OMNIA contract#R191811, CDA 30003735

## Conference Room

| | Qty | Mfg | Description and Model Number | List | Sell | Ext Sell |
|---|---|---|---|---|---|---|
|  | 1 | KIM | **N29GMMC1**<br>**CHADDY,GUEST,MESH BACK,UPHOLSTERED SEAT,ARMLESS,MOBILE,QTY 1**<br>BBB BLACK FRAME,BLACK BACK & MESH<br>COM CUSTOMER'S OWN MATERIAL<br>SPECIAL PRIMARY UPH PATTERN COLOR<br>TOR PALLAS BROGUE Grizzly<br>SOFT SOFT,DUAL WHEEL CASTER | $1,065.00 | $479.25 | $479.25 |
|  | 16 | KIM | **N29GMMC4**<br>**CHADDY,GUEST,MESH BACK,UPHOLSTERED SEAT,ARMLESS,MOBILE,QTY 4**<br>BBB BLACK FRAME,BLACK BACK & MESH<br>COM CUSTOMER'S OWN MATERIAL<br>SPECIAL PRIMARY UPH PATTERN COLOR<br>TOR PALLAS BROGUE Grizzly<br>SOFT SOFT,DUAL WHEEL CASTER | $3,894.00 | $1,752.30 | $28,036.80 |

Ext. List: $63,369.00
**Subtotal: $28,516.05**

## Guest Chairs- Executive Office

| | Qty | Mfg | Description and Model Number | List | Sell | Ext Sell |
|---|---|---|---|---|---|---|
|  | 10 | KIM | **N59AA**<br>**ACQUAINT,GUEST,HALF UPH BACK,ARMS**<br>COM CUSTOMER'S OWN MATERIAL<br>SPECIAL PRIMARY UPH PATTERN COLOR<br>TOR PALLAS BROGUE GRIZZLY<br>462 CINDER | $1,469.00 | $661.05 | $6,610.50 |

Ext. List: $14,690.00
**Subtotal: $6,610.50**

## Lobby Areas

| | Qty | Mfg | Description and Model Number | List | Sell | Ext Sell |
|---|---|---|---|---|---|---|
|  | 2 | KIM | **NCG01829963046**<br>**REF Model 69N1423SMSHL LOCHLYN,14DX23W,MODULE SHELF,LAMINATE, QL-157046** | $532.00 | $239.40 | $478.80 |
|  | 2 | KIM | VA6001-T NEVAMAR #VA6001-T CALM DISTINCTION<br>**NCG01829963047**<br>**REF Model 69N2312SMBXFOL LOCHLYN,23WX12H,MODULE BOX,FRONT OPEN,LAMINATE, QL-157047** | $1,450.00 | $652.50 | $1,305.00 |

| | | | | | | |
|---|---|---|---|---|---|---|
|  | 1 | KIM | **NCG01829963048**<br>**REF Model 69N2925SMBXFOL LOCHLYN,29WX25H,MODULE BOX,FRONT OPEN,LAMINATE, QL-157048**<br>**NON-CONTRACT/OPEN** | $1,776.00 | $799.20 | $799.20 |
|  | 1 | KIM | VA6001-T NEVAMAR #VA6001-T CALM DISTINCTION<br>VA6001-T NEVAMAR #VA6001-T CALM DISTINCTION<br>**NCG01829963049**<br>**REF Model 69N1478CPTFLL LOCHLYN,14DX78W,COMPONENT TOP,LAMINATE** | $1,027.00 | $462.15 | $462.15 |
|  | 1 | KIM | VA6001-T NEVAMAR #VA6001-T CALM DISTINCTION<br>**69N7827CFRFM**<br>**LOCHLYN,78WX27H,FRAME,STYLE C,METAL** | $4,420.00 | $1,989.00 | $1,989.00 |
|  | 1 | KIM | 461 GRAPHITE<br>**NCG01829963050**<br>**REF Model 88NA1818TRDLW WIXLER,18WX18H,TABLE,ROUND,HPL, QL-157050** | $2,933.00 | $1,319.85 | $1,319.85 |
|  | 1 | KIM | STD STANDARD LAMINATE<br>VA6001-T NEVAMAR #VA6001-T CALM DISTINCTION<br>VA6001-T NEVAMAR #VA6001-T CALM DISTINCTION<br>462 CINDER<br>**N58T2745MGOL**<br>**HOBSEN,27DX45W,MAGAZINE TABLE,OVAL,LAM TOP** | $2,391.00 | $1,075.95 | $1,075.95 |
|  | 1 | KIM | 462 CINDER<br>462 CINDER<br>**N66RD36GL**<br>**WHIMSY,36DIA ROUND,STATIC,LAMINATE TOP** | $1,637.00 | $736.65 | $736.65 |
|  | 2 | KIM | 462 CINDER<br>COM CUSTOMER'S OWN MATERIAL<br>SPECIAL PRIMARY UPH PATTERN COLOR<br>TOR PALLAS STITCH SPARROW<br>**N77GL4W**<br>**MABEL,GUEST,LOW BACK,4-LEG,WOOD** | $2,792.00 | $1,256.40 | $2,512.80 |
|  | 2 | KIM | DTJ DESIGNTEX GRADE J<br>3156_701 SILICONE NAPPA OAK<br>462 CINDER<br>**N83GM4W**<br>**IDARA,MIDBACK,4 LEG,WOOD** | $3,379.00 | $1,520.55 | $3,041.10 |
|  | 1 | KIM | DTC DESIGNTEX GRADE C<br>3809_104 RISE CAROB<br>462 CINDER<br>**N86LE1RX**<br>**EKLUND,LOUNGE,END,1 SEAT,RIGHT ARM,CONTRAST** | $3,080.00 | $1,386.00 | $1,386.00 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | SPECIAL | BACK UPHOLSTERY PATTERN COLOR | | | |
| | | | TOR | PALLAS STITCH SPARROW | | | |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | SPECIAL | EXTREME BACK UPH PATTERN COLOR | | | |
| | | | TOR | PALLAS STITCH SPARROW | | | |
| | | | 2 | GRADE 2 | | | |
| | | | 22115 | SEDONA TUMBLEWEED | | | |
| | | | 2 | GRADE 2 | | | |
| | | | 22115 | SEDONA TUMBLEWEED | | | |
| | | | 461 | METAL,GRAPHITE | | | |
| | | | STD | STANDARD HARD GLIDE | | | |
|  | 2 | KIM | **N86LF1ATX**<br>**EKLUND,LOUNGE,FREESTANDING,1 SEAT,ARMS,TUFTING,CONTRAST** | | $5,455.00 | $2,454.75 | $4,909.50 |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | SPECIAL | SEAT UPHOLSTERY PATTERN COLOR | | | |
| | | | TOR | PALLAS BROGUE GRIZZLY | | | |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | SPECIAL | PRIMARY UPH PATTERN COLOR | | | |
| | | | TOR | PALLAS BROGUE GRIZZLY | | | |
| | | | W462 | WOOD,CINDER | | | |
| | | | STD | STANDARD HARD GLIDE | | | |
|  | 1 | KIM | **N86LS1LX**<br>**EKLUND,LOUNGE,STARTER,1 SEAT,LEFT ARM,CONTRAST** | | $3,222.00 | $1,449.90 | $1,449.90 |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | SPECIAL | BACK UPHOLSTERY PATTERN COLOR | | | |
| | | | TOR | PALLAS STITCH SPARROW | | | |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | SPECIAL | EXTREME BACK UPH PATTERN COLOR | | | |
| | | | TOR | PALLAS STITCH SPARROW | | | |
| | | | 2 | GRADE 2 | | | |
| | | | 22115 | SEDONA TUMBLEWEED | | | |
| | | | 2 | GRADE 2 | | | |
| | | | 22115 | SEDONA TUMBLEWEED | | | |
| | | | 461 | METAL,GRAPHITE | | | |
| | | | STD | STANDARD HARD GLIDE | | | |
|  | 1 | KIM | **N86TA29EL**<br>**EKLUND,END TABLE,ADD-ON,LAMINATE** | | $1,722.00 | $774.90 | $774.90 |
| | | | 462 | CINDER | | | |
| | | | 7 | GRADE 7 | | | |
| | | | 71407 | TOTTORI SOY SAUCE | | | |
| | | | 461 | METAL,GRAPHITE | | | |
| | | | STD | STANDARD HARD GLIDE | | | |
|  | 2 | KIM | **NST01798701422**<br>**REF N94L1ASMX JOVALIE,1 SEAT LOUNGE,SWIVEL BASE,CONTRASTING** | | $5,212.00 | $2,345.40 | $4,690.80 |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | 27.284.031 | PALLAS GLITZ TAILORED TAUPE | | | |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | SPECIAL | EXTREME BACK UPH PATTERN COLOR | | | |
| | | | 27.284.031 | PALLAS GLITZ TAILORED TAUPE | | | |
| | | | DTJ | DESIGNTEX GRADE J | | | |
| | | | 3156_104 | SILICONE NAPPA SADDLE | | | |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | 27.284.031 | PALLAS GLITZ TAILORED TAUPE | | | |

| | |
|---|---|
| Ext. List: | $59,848.00 |
| **Subtotal:** | **$26,931.60** |

| Qty | Mfg | Zfabric<br>Description and Model Number | List | Sell | Ext Sell |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 98 | Pallas | **Brogue Mortar**<br>**98 yards of Pallas Brogue Grizzly to be applied to 65- N29GMMC1** | $0.00 | $60.31 | $5,910.38 |
| 6 | Pallas | **Stitch Sparrow**<br>**4 yards of Pallas Stitch Sparrow to be applied to 1- N86LE1RX and 1- N86LS1LX** | $0.00 | $57.50 | $345.00 |
| 22 | Pallas | **Brogue Grizzly**<br>**22 yards of Pallas Brogue Grizzly to be applied to 2- N86LF1ATX** | $0.00 | $60.31 | $1,326.82 |
| 13 | Pallas | **Glitz Tailored Taupe**<br>**13 yards of Pallas Glitz Tailored Taupe to be applied to 2- N94L1ASMX** | $0.00 | $53.13 | $690.69 |
| 10 | Pallas | **Brogue Mortar**<br>**10 yards of Pallas Brogue Grizzly to be applied to 10- N59AA** | $0.00 | $60.31 | $603.10 |
| 1 | Pallas | **Freight**<br>**Pallas fabric to be shipped to: Kimball International 340 E 11th Avenue Jasper, Indiana 47546** | $0.00 | $290.31 | $290.31 |
| | | | | Ext. List: | $0.00 |
| | | | | **Subtotal:** | **$9,166.30** |
| | | **Installation per contract:** | $7,050.00 | $7,050.00 | $7,050.00 |

**Total List:** **$144,957.00**

**Total Sell:** **$78,274.45**

**Furniture Project Payment Terms:**

**Special Order Furniture is non-returnable**

**Financing is available!**

Design and Project Management Services: Hourly accrual of work performed, to be billed monthly - Rate: $75.00
Monthly Payment - billable hours based on work completed.
Payment due upon receipt of invoice - standard 15 day period
Furniture/Parts Order - 75% deposit due at time of order
Second Deposit due if product is stored beyond 30 days from time of receiving to our warehouse - 15% due.
Final balance due upon completion of delivery

**Review all furniture finishes prior to placing order**
Please review fabrics and finishes for accuracy before placing order. If fabric or finish samples are needed, please contact your sales representative at 432-617-0017. Once fabrics and finishes are approved, please sign below and include with Purchase Order.

X_____
Customer Signature - Date
I agree fabrics and finishes on this quote are accurate.
I understand special order furniture cannot be returned.

# Quotation

**Prepared For:**
Justine Ruff
Midland International Airport
9506 La Force Blvd
Midland TX 79706
432-560-2200

**Account Manager:**
Larry Nelson
lnelson@officewiseco.com
Designer: Melissa Herrera
432-617-0095

**Date:** 9/12/2023

**Expires: 14 days**
***unless price increase occurs**

**Purchase Order Must Be Made To:**
Officewise Commercial Interiors
2310 W Michigan Ave. Midland, TX 79701
**Installation must be on a separate line.
***Email PO to mherrera@officewiseco.com

OMNIA # BNR482

| | Qty | Mfg | Description and Model Number | List | Sell | Ext Sell |
|---|---|---|---|---|---|---|
|  | 28 | HMI | **AER1C23DW**<br>***Work Chair,New Aeron,C Size,Std-Hgt Range Adj,Tlt Lim and Seat Angle,Fully Adj Arms,Non-Uphst Armpads**<br>ALP *adjustable posturefit SL<br>G1 *graphite<br>G1 *graphite<br>G1 *graphite<br>C7 *2 1/2" caster, black yoke, hard floors or carpet<br>BK *black<br>231 *8Z Pellicle-Pr Cat 1<br>03 *8Z Pellicle graphite | $2,312.00 | $1,202.24 | $33,662.72 |
|  | 16 | HMI | **AER1B23DW**<br>***Work Chair,New Aeron,B Size,Std-Hgt Range Adj,Tlt Lim and Seat Angle,Fully Adj Arms,Non-Uphst Armpads**<br>ALP *adjustable posturefit SL<br>G1 *graphite<br>G1 *graphite<br>G1 *graphite<br>C7 *2 1/2" caster, black yoke, hard floors or carpet<br>BK *black<br>231 *8Z Pellicle-Pr Cat 1<br>03 *8Z Pellicle graphite | $2,312.00 | $1,202.24 | $19,235.84 |
| | | | | | Ext. List: | $101,728.00 |
| | | | | | **Subtotal:** | **$52,898.56** |
| | | | **Installation per contract:** | $1,675.00 | $1,675.00 | $1,675.00 |

**Total List:** **$103,403.00**

PACKET 17.12 November 14, 2023

**Furniture Project Payment Terms:**

**Total Sell:** **$54,573.56**

**Special Order Furniture is non-returnable**

**Financing is available!**

Design and Project Management Services: Hourly accrual of work performed, to be billed monthly - Rate: $75.00
Monthly Payment - billable hours based on work completed.
Payment due upon receipt of invoice - standard 15 day period
Furniture/Parts Order - 75% deposit due at time of order
Second Deposit due if product is stored beyond 30 days from time of receiving to our warehouse - 15% due.
Final balance due upon completion of delivery

**Review all furniture finishes prior to placing order**
Please review fabrics and finishes for accuracy before placing order. If fabric or finish samples are needed, please contact your sales representative at 432-617-0017. Once fabrics and finishes are approved, please sign below and include with Purchase Order.

X_____
Customer Signature - Date
I agree fabrics and finishes on this quote are accurate.
I understand special order furniture cannot be returned.

# Quotation

**Prepared For:** Justine Ruff
Midland International Airport
9506 La Force Blvd
Midland TX 79706
432-560-2200

**Date:** 10/18/2023

**Expires: 14 days**
***unless price increase occurs**

**Purchase Order Must Be Made To:**
Officewise Commercial Interiors
2310 W Michigan Ave. Midland, TX 79701
**Installation must be on a separate line.
***Email PO to mherrera@officewiseco.com

**Account Manager:** Larry Nelson
lnelson@officewiseco.com
Designer: Melissa Herrera
432-617-0095

NCPA 07-110

| Qty | Mfg | Description and Model Number | List | Sell | Ext Sell |
|---|---|---|---|---|---|
| 1 | | **SPECIAL FWCD-9036-PE-PEC·**<br>**Flow Buffet Height Credenza 90"W x 24"D x 36"H, *COM Solid Surface Top, Cradle Base, Laminate Case, Five Doors** | $12,744.00 | $7,391.52 | $7,391.52 |
| | | **SPC. TO ACCEPT .5" THICK CUSTOMER SUPPLIED - FIELD INSTALLED SOLID SURFACE<br>**DXF FILE NEEDED â€“ INCLUDED IN PRICE<br>**SPC. TO INCLUDE PULL OUT DRAWERS BEHIND ALL DOORS - SEE DV | | | |
| | | -COM SOLID SURFACE: Customer Supplied, Field Installed<br>-WOL OPT: Woodgrain Laminate Case (Grain Will Be Vertical)<br>-8846-58 LAM: Oiled Legno<br>-PED Laminate Doors (Matches Case)<br>~ Standard Powder Coat Base<br>-A44 METAL: Black Powder Coat<br>-LK OPT: Locks<br>~ No Equipment Rack (Defaults to Adjustable Shelf)<br>~ No Pull-Out Waste/Recycling Unit (Defaults to Adjustable Shelf) | | | |
| 12 | | **SPECIAL AGF-2660-FE-3MP**<br>**Agility, Rectangle Reconfigurable Table, 26"D x 60"W, Fixed Leg - Edge Mounted, Laminate Top with ABS Edge** | $4,602.00 | $2,669.16 | $32,029.92 |
| | | **SPC. TO INCLUDE MATCHING EDGEBAND TO FORMICA OILED LEGNC (1mm x 1-5/16")** | | | |
| | | -WOL Woodgrain Laminates<br>-8846-58 LAM: Oiled Legno<br>-*F8846 ABS EDGE: *Match to Formica Oiled Legno<br>-PM60 OPT: Painted Modesty Panel<br>~ ***Undecided Painted Modesty Panel***<br>~ Powder Coated Metal Leg<br>~ ***Undecided Metal Finish***<br>~ Glides (default)<br>-GCA OPT: Ganging Connectors<br>~ No Grommet Option (spec power separate)<br>~ No Plug Strip<br>~ No Modular Power | | | |
| 4 | | **SPECIAL APT-7236-PE-PA**<br>**Approach, Rectangle Nesting - Non-Grain Matched - Individual Tables, 72"L x 36"W, Laminate Top with ABS Edge, Painted Base** | $8,477.00 | $4,916.66 | $19,666.64 |
| | | **SPC. TO INCLUDE MATCHING EDGEBAND TO FORMICA OILED LEGNC (1mm x 1-5/16")** | | | |
| | | -WOL OPT: Woodgrain Laminates<br>-8846-58 LAM: Oiled Legno<br>-*F8846 ABS EDGE: *Match to Formica Oiled Legno<br>-S44 PAINTED BASE: Black<br>-PO METAL: Standard Powder Coat Leg<br>-A44 METAL: Black Powder Coat<br>~ Keep Ganging Connectors<br>~ Keep Modular Power | | | |

| | | | | | |
|---|---|---|---|---|---|
| 4 | **PM-SM-M**<br>**Power Matrix, Small - Metal Door, 5.75"W x 5.375"D, 15 amp, 36"L plug-in infeed** | | $1,418.00 | $822.44 | $3,289.76 |
| | -PS-X | OPT: One in each table | | | |
| | -D | OPT: Standard Metal Door | | | |
| | ~ | ***Undecided Standard Powder Coat or Clear Anodized Aluminum Finish*** | | | |
| | -B | OPT: Standard Metal Bezel | | | |
| | ~ | ***Undecided Standard Powder Coat or Clear Anodized Aluminum Finish*** | | | |
| | ~ | (2) Simplexes, (2) Blank AAP Plates, (1) Dual RJ-45 AAP Plate | | | |
| | ~ | No Field Wired | | | |
| 1 | **APP-P**<br>**Approach, Modular Power System, 20 Amp Plug-In Power In-Feed, (1) Circuit of the (2) Circuit System** | | $400.00 | $232.00 | $232.00 |
| 1 | **Solid Surface**<br>**Furnish the Staron Solid Surface Natural Bridge color # VN144 as per size and edge profile furnished. 90 inches long X 24 inches wide X ½ inch thick with 1/16 radius and polished edges. Includes material, fabrication, delivery to airport, and installed.** | | $0.00 | $2,569.48 | $2,569.48 |
| | | | | Ext. List: | $107,948.00 |
| | | | | **Subtotal:** | **$65,179.32** |
| | **Installation per contract:** | | $5,900.00 | $5,900.00 | $5,900.00 |

**Total List:** **$113,848.00**

**Total Sell:** **$71,079.32**

**Financing is available!**

**Furniture Project Payment Terms:**

**Special Order Furniture is non-returnable**

Design and Project Management Services: Hourly accrual of work performed, to be billed monthly - Rate: $75.00
Monthly Payment - billable hours based on work completed.
Payment due upon receipt of invoice - standard 15 day period
Furniture/Parts Order - 75% deposit due at time of order
Second Deposit due if product is stored beyond 30 days from time of receiving to our warehouse - 15% due.
Final balance due upon completion of delivery

**Review all furniture finishes prior to placing order**
Please review fabrics and finishes for accuracy before placing order. If fabric or finish samples are needed, please contact your sales representative at 432-617-0017. Once fabrics and finishes are approved, please sign below and include with Purchase Order.

X_____
Customer Signature - Date
I agree fabrics and finishes on this quote are accurate.
I understand special order furniture cannot be returned.

# Quotation

**Prepared For:** Justine Ruff
Midland International Airport
9506 La Force Blvd
Midland TX 79706
432-560-2200

**Date:** 10/6/2023

**Expires: 14 days**
***unless price increase occurs**

**Purchase Order Must Be Made To:**
Officewise Commercial Interiors
2310 W Michigan Ave. Midland, TX 79701
**Installation must be on a separate line.
***Email PO to mherrera@officewiseco.com

**Account Manager:** Larry Nelson
lnelson@officewiseco.com
Designer: Melissa Herrera
432-617-0095

NOF OMNIA contract#R191811, CDA 30003735

## Conference Room

| | Qty | Mfg | Description and Model Number | List | Sell | Ext Sell |
|---|---|---|---|---|---|---|
|  | 1 | KIM | **N29GMMC1**<br>**CHADDY,GUEST,MESH BACK,UPHOLSTERED SEAT,ARMLESS,MOBILE,QTY 1**<br>BBB BLACK FRAME,BLACK BACK & MESH<br>COM CUSTOMER'S OWN MATERIAL<br>SPECIAL PRIMARY UPH PATTERN COLOR<br>TOR PALLAS BROGUE Grizzly<br>SOFT SOFT,DUAL WHEEL CASTER | $1,065.00 | $479.25 | $479.25 |
|  | 16 | KIM | **N29GMMC4**<br>**CHADDY,GUEST,MESH BACK,UPHOLSTERED SEAT,ARMLESS,MOBILE,QTY 4**<br>BBB BLACK FRAME,BLACK BACK & MESH<br>COM CUSTOMER'S OWN MATERIAL<br>SPECIAL PRIMARY UPH PATTERN COLOR<br>TOR PALLAS BROGUE Grizzly<br>SOFT SOFT,DUAL WHEEL CASTER | $3,894.00 | $1,752.30 | $28,036.80 |

Ext. List: $63,369.00
**Subtotal: $28,516.05**

## Guest Chairs- Executive Office

| | Qty | Mfg | Description and Model Number | List | Sell | Ext Sell |
|---|---|---|---|---|---|---|
|  | 10 | KIM | **N59AA**<br>**ACQUAINT,GUEST,HALF UPH BACK,ARMS**<br>COM CUSTOMER'S OWN MATERIAL<br>SPECIAL PRIMARY UPH PATTERN COLOR<br>TOR PALLAS BROGUE GRIZZLY<br>462 CINDER | $1,469.00 | $661.05 | $6,610.50 |

Ext. List: $14,690.00
**Subtotal: $6,610.50**

## Lobby Areas

| | Qty | Mfg | Description and Model Number | List | Sell | Ext Sell |
|---|---|---|---|---|---|---|
|  | 2 | KIM | **NCG01829963046**<br>**REF Model 69N1423SMSHL LOCHLYN,14DX23W,MODULE SHELF,LAMINATE, QL-157046**<br>VA6001-T NEVAMAR #VA6001-T CALM DISTINCTION | $532.00 | $239.40 | $478.80 |
|  | 2 | KIM | **NCG01829963047**<br>**REF Model 69N2312SMBXFOL LOCHLYN,23WX12H,MODULE BOX,FRONT OPEN,LAMINATE, QL-157047**<br>VA6001-T NEVAMAR #VA6001-T CALM DISTINCTION | $1,450.00 | $652.50 | $1,305.00 |

| | | | | | | |
|---|---|---|---|---|---|---|
|  | 1 | KIM | **NCG01829963048**<br>**REF Model 69N2925SMBXFOL LOCHLYN,29WX25H,MODULE BOX,FRONT OPEN,LAMINATE, QL-157048**<br>**NON-CONTRACT/OPEN** | $1,776.00 | $799.20 | $799.20 |
|  | 1 | KIM | VA6001-T NEVAMAR #VA6001-T CALM DISTINCTION<br>VA6001-T NEVAMAR #VA6001-T CALM DISTINCTION<br>**NCG01829963049**<br>**REF Model 69N1478CPTFLL LOCHLYN,14DX78W,COMPONENT TOP,LAMINATE** | $1,027.00 | $462.15 | $462.15 |
|  | 1 | KIM | VA6001-T NEVAMAR #VA6001-T CALM DISTINCTION<br>**69N7827CFRFM**<br>**LOCHLYN,78WX27H,FRAME,STYLE C,METAL** | $4,420.00 | $1,989.00 | $1,989.00 |
|  | 1 | KIM | 461 GRAPHITE<br>**NCG01829963050**<br>**REF Model 88NA1818TRDLW WIXLER,18WX18H,TABLE,ROUND,HPL, QL-157050** | $2,933.00 | $1,319.85 | $1,319.85 |
|  | 1 | KIM | STD STANDARD LAMINATE<br>VA6001-T NEVAMAR #VA6001-T CALM DISTINCTION<br>VA6001-T NEVAMAR #VA6001-T CALM DISTINCTION<br>462 CINDER<br>**N58T2745MGOL**<br>**HOBSEN,27DX45W,MAGAZINE TABLE,OVAL,LAM TOP** | $2,391.00 | $1,075.95 | $1,075.95 |
|  | 1 | KIM | 462 CINDER<br>462 CINDER<br>**N66RD36GL**<br>**WHIMSY,36DIA ROUND,STATIC,LAMINATE TOP** | $1,637.00 | $736.65 | $736.65 |
|  | 2 | KIM | 462 CINDER<br>COM CUSTOMER'S OWN MATERIAL<br>SPECIAL PRIMARY UPH PATTERN COLOR<br>TOR PALLAS STITCH SPARROW<br>**N77GL4W**<br>**MABEL,GUEST,LOW BACK,4-LEG,WOOD** | $2,792.00 | $1,256.40 | $2,512.80 |
|  | 2 | KIM | DTJ DESIGNTEX GRADE J<br>3156_701 SILICONE NAPPA OAK<br>462 CINDER<br>**N83GM4W**<br>**IDARA,MIDBACK,4 LEG,WOOD** | $3,379.00 | $1,520.55 | $3,041.10 |
|  | 1 | KIM | DTC DESIGNTEX GRADE C<br>3809_104 RISE CAROB<br>462 CINDER<br>**N86LE1RX**<br>**EKLUND,LOUNGE,END,1 SEAT,RIGHT ARM,CONTRAST** | $3,080.00 | $1,386.00 | $1,386.00 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | SPECIAL | BACK UPHOLSTERY PATTERN COLOR | | | |
| | | | TOR | PALLAS STITCH SPARROW | | | |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | SPECIAL | EXTREME BACK UPH PATTERN COLOR | | | |
| | | | TOR | PALLAS STITCH SPARROW | | | |
| | | | 2 | GRADE 2 | | | |
| | | | 22115 | SEDONA TUMBLEWEED | | | |
| | | | 2 | GRADE 2 | | | |
| | | | 22115 | SEDONA TUMBLEWEED | | | |
| | | | 461 | METAL,GRAPHITE | | | |
| | | | STD | STANDARD HARD GLIDE | | | |
|  | 2 | KIM | **N86LF1ATX**<br>**EKLUND,LOUNGE,FREESTANDING,1 SEAT,ARMS,TUFTING,CONTRAST** | | $5,455.00 | $2,454.75 | $4,909.50 |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | SPECIAL | SEAT UPHOLSTERY PATTERN COLOR | | | |
| | | | TOR | PALLAS BROGUE GRIZZLY | | | |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | SPECIAL | PRIMARY UPH PATTERN COLOR | | | |
| | | | TOR | PALLAS BROGUE GRIZZLY | | | |
| | | | W462 | WOOD,CINDER | | | |
| | | | STD | STANDARD HARD GLIDE | | | |
|  | 1 | KIM | **N86LS1LX**<br>**EKLUND,LOUNGE,STARTER,1 SEAT,LEFT ARM,CONTRAST** | | $3,222.00 | $1,449.90 | $1,449.90 |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | SPECIAL | BACK UPHOLSTERY PATTERN COLOR | | | |
| | | | TOR | PALLAS STITCH SPARROW | | | |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | SPECIAL | EXTREME BACK UPH PATTERN COLOR | | | |
| | | | TOR | PALLAS STITCH SPARROW | | | |
| | | | 2 | GRADE 2 | | | |
| | | | 22115 | SEDONA TUMBLEWEED | | | |
| | | | 2 | GRADE 2 | | | |
| | | | 22115 | SEDONA TUMBLEWEED | | | |
| | | | 461 | METAL,GRAPHITE | | | |
| | | | STD | STANDARD HARD GLIDE | | | |
|  | 1 | KIM | **N86TA29EL**<br>**EKLUND,END TABLE,ADD-ON,LAMINATE** | | $1,722.00 | $774.90 | $774.90 |
| | | | 462 | CINDER | | | |
| | | | 7 | GRADE 7 | | | |
| | | | 71407 | TOTTORI SOY SAUCE | | | |
| | | | 461 | METAL,GRAPHITE | | | |
| | | | STD | STANDARD HARD GLIDE | | | |
|  | 2 | KIM | **NST01798701422**<br>**REF N94L1ASMX JOVALIE,1 SEAT LOUNGE,SWIVEL BASE,CONTRASTING** | | $5,212.00 | $2,345.40 | $4,690.80 |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | 27.284.031 | PALLAS GLITZ TAILORED TAUPE | | | |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | SPECIAL | EXTREME BACK UPH PATTERN COLOR | | | |
| | | | 27.284.031 | PALLAS GLITZ TAILORED TAUPE | | | |
| | | | DTJ | DESIGNTEX GRADE J | | | |
| | | | 3156_104 | SILICONE NAPPA SADDLE | | | |
| | | | COM | CUSTOMER'S OWN MATERIAL | | | |
| | | | 27.284.031 | PALLAS GLITZ TAILORED TAUPE | | | |

| | |
|---|---|
| Ext. List: | $59,848.00 |
| **Subtotal:** | **$26,931.60** |

| Qty | Mfg | Zfabric<br>Description and Model Number | List | Sell | Ext Sell |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 98 | Pallas | **Brogue Mortar**<br>**98 yards of Pallas Brogue Grizzly to be applied to 65- N29GMMC1** | $0.00 | $60.31 | $5,910.38 |
| 6 | Pallas | **Stitch Sparrow**<br>**4 yards of Pallas Stitch Sparrow to be applied to 1- N86LE1RX and 1- N86LS1LX** | $0.00 | $57.50 | $345.00 |
| 22 | Pallas | **Brogue Grizzly**<br>**22 yards of Pallas Brogue Grizzly to be applied to 2- N86LF1ATX** | $0.00 | $60.31 | $1,326.82 |
| 13 | Pallas | **Glitz Tailored Taupe**<br>**13 yards of Pallas Glitz Tailored Taupe to be applied to 2- N94L1ASMX** | $0.00 | $53.13 | $690.69 |
| 10 | Pallas | **Brogue Mortar**<br>**10 yards of Pallas Brogue Grizzly to be applied to 10- N59AA** | $0.00 | $60.31 | $603.10 |
| 1 | Pallas | **Freight**<br>**Pallas fabric to be shipped to: Kimball International 340 E 11th Avenue Jasper, Indiana 47546** | $0.00 | $290.31 | $290.31 |
| | | | | Ext. List: | $0.00 |
| | | | | **Subtotal:** | **$9,166.30** |
| | | **Installation per contract:** | $7,050.00 | $7,050.00 | $7,050.00 |

**Total List:** **$144,957.00**

**Total Sell:** **$78,274.45**

**Furniture Project Payment Terms:**

**Special Order Furniture is non-returnable**

**Financing is available!**

Design and Project Management Services: Hourly accrual of work performed, to be billed monthly - Rate: $75.00
Monthly Payment - billable hours based on work completed.
Payment due upon receipt of invoice - standard 15 day period
Furniture/Parts Order - 75% deposit due at time of order
Second Deposit due if product is stored beyond 30 days from time of receiving to our warehouse - 15% due.
Final balance due upon completion of delivery

**Review all furniture finishes prior to placing order**
Please review fabrics and finishes for accuracy before placing order. If fabric or finish samples are needed, please contact your sales representative at 432-617-0017. Once fabrics and finishes are approved, please sign below and include with Purchase Order.

X_____
Customer Signature - Date
I agree fabrics and finishes on this quote are accurate.
I understand special order furniture cannot be returned.

# Quotation

**Prepared For:** Justine Ruff
Midland International Airport
9506 La Force Blvd
Midland TX 79706
432-560-2200

**Account Manager:** Larry Nelson
lnelson@officewiseco.com
Designer: Melissa Herrera
432-617-0095

**Date:** 9/12/2023

**Expires: 14 days**
***unless price increase occurs**

**Purchase Order Must Be Made To:**
Officewise Commercial Interiors
2310 W Michigan Ave. Midland, TX 79701
**Installation must be on a separate line.
***Email PO to mherrera@officewiseco.com

OMNIA # BNR482

| | Qty | Mfg | Description and Model Number | List | Sell | Ext Sell |
|---|---|---|---|---|---|---|
|  | 28 | HMI | **AER1C23DW**<br>***Work Chair,New Aeron,C Size,Std-Hgt Range Adj,Tlt Lim and Seat Angle,Fully Adj Arms,Non-Uphst Armpads**<br>ALP *adjustable posturefit SL<br>G1 *graphite<br>G1 *graphite<br>G1 *graphite<br>C7 *2 1/2" caster, black yoke, hard floors or carpet<br>BK *black<br>231 *8Z Pellicle-Pr Cat 1<br>03 *8Z Pellicle graphite | $2,312.00 | $1,202.24 | $33,662.72 |
|  | 16 | HMI | **AER1B23DW**<br>***Work Chair,New Aeron,B Size,Std-Hgt Range Adj,Tlt Lim and Seat Angle,Fully Adj Arms,Non-Uphst Armpads**<br>ALP *adjustable posturefit SL<br>G1 *graphite<br>G1 *graphite<br>G1 *graphite<br>C7 *2 1/2" caster, black yoke, hard floors or carpet<br>BK *black<br>231 *8Z Pellicle-Pr Cat 1<br>03 *8Z Pellicle graphite | $2,312.00 | $1,202.24 | $19,235.84 |
| | | | | | Ext. List: | $101,728.00 |
| | | | | | **Subtotal:** | **$52,898.56** |
| | | | **Installation per contract:** | $1,675.00 | $1,675.00 | $1,675.00 |

**Total List:** **$103,403.00**

**Furniture Project Payment Terms:**

**Total Sell:** **$54,573.56**

**Special Order Furniture is non-returnable**

**Financing is available!**

Design and Project Management Services: Hourly accrual of work performed, to be billed monthly - Rate: $75.00
Monthly Payment - billable hours based on work completed.
Payment due upon receipt of invoice - standard 15 day period
Furniture/Parts Order - 75% deposit due at time of order
Second Deposit due if product is stored beyond 30 days from time of receiving to our warehouse - 15% due.
Final balance due upon completion of delivery

**Review all furniture finishes prior to placing order**
Please review fabrics and finishes for accuracy before placing order. If fabric or finish samples are needed, please contact your sales representative at 432-617-0017. Once fabrics and finishes are approved, please sign below and include with Purchase Order.

X_____
Customer Signature - Date
I agree fabrics and finishes on this quote are accurate.
I understand special order furniture cannot be returned.

# City Council Meeting

**Item Number:** 18

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Justine Ruff, Director

**Subject:** **MOTION APPROVING PLANS AND SPECIFICATIONS FOR THE MIDLAND AIRPARK ENTRY ROAD ENHANCEMENTS PROJECT, SAID PLANS AND SPECIFICATIONS BEING ON FILE IN THE CITY SECRETARY'S OFFICE REFERENCED BY THE NUMBER AND DATE OF THIS MOTION, AND AUTHORIZING THE CITY MANAGER OR THE CITY MANAGER'S DESIGNEE TO ADVERTISE FOR COMPETITIVE BIDS FOR SAID PROJECT PURSUANT TO THE STATUTES OF THE STATE OF TEXAS FOR ACCOMPLISHING THE WORK SET FORTH IN SAID PLANS AND SPECIFICATIONS (DISTRICT 4) (AIRPORTS)**

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**Purpose:**

Motion authorizing the plans and specifications for the Midland Airpark Entry Road Enhancements Project at Midland Airpark, said plans and specifications being on file in the City Secretary's office referenced by the number and date of this Motion, and to authorize the City Manager or the City Manager's designee to advertise for competitive bids for said project pursuant to the statues of the State of Texas for accomplishing the work set forth in said plans and specifications.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

To be Determined

**Discussion:**

The Airpark Entrance Way Enhancement Project was included in Amendment #3 to the Airport's 2021 Professional Services Agreement with Parkhill. The project addresses the current

entrance road to Midland Airpark which was constructed as a semi-low water crossing of the Jal drainage draw. The road entrance consists of concrete reinforced pipe to convey the nuisance water and smaller rainstorm events without topping the roadway surface. This entrance road is the primary public entrance/exit to Midland Airpark.

In recent years, during large rainstorm events, the storm water in the Jal drainage draw would overtop the roadway surface making it unsafe to traverse until the runoff from the storm had receded. The objective of this project is to construct a roadway and bridge structure to provide the capacity to allow the larger rainstorm events to pass under the bridge structure without overtopping the roadway surface. This project will be funded by the Airport Operating Fund.

City Manager's Office

Parkhill

PROJECT MANUAL

# MIDLAND AIRPARK (MDD)

## Midland Airpark Entry Road Enhancements

## Midland, Texas

Midland Airpark

November | 2023

Parkhill Project # 01619822

Parkhill

PROJECT MANUAL

# MIDLAND AIRPARK (MDD)

## Midland Airpark Entry Road Enhancements

## Midland, Texas

Midland Airpark




November | 2023

Parkhill Project # 01619822

PACKET 18.4 November 14, 2023

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## TECHNICAL SPECIFICATIONS

Technical Specifications adopted by the Texas Department of Transportation (TxDOT) November 1, 2014 and titled "Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges" shall govern this Project, except where superseded in the Plans and Contract Documents. This Specification book may be purchased from TxDOT or downloaded at: http://www.txdot.gov/business/resources/txdot-specifications.html. For this Project, any reference within the Specification book to "Department," "Engineer," or "Owner" should be interpreted as City of Midland Airport authorized staff, or their representatives.

**ADVERTISEMENT FOR BIDS**
NOTICE TO BIDDERS

Sealed proposals addressed to the City Secretary will be received at the office of the City Secretary, City Hall, Midland, Texas until 2:00 p.m. CDT, Wednesday, December 20, 2023, for furnishing all necessary materials, machinery, equipment, superintendence, and labor for constructing certain improvements at Midland Airpark (MDD), Midland, Texas. These improvements are contained in Plans and Specifications entitled, "Midland Airpark Entry Road Enhancements," dated November 2023.

Immediately following the closing time for receipt of Bids/Proposals will be publicly opened and read aloud. Any Bid received after closing time will be returned unopened.

Principal items of Work are set forth in specific detail in the Proposal Section of these Specifications; however, Work items may be generally described as construction of a 120-foot (two 60-foot spans) concrete pretensioned I-girder bridge, approaches, associated rip-rap, channel grading, rehabilitation of roadway approaches/airport entry roads with hot-mix asphalt, flexible base, sub-grade preparation, grading, and driveway construction. Additionally, the Project includes constructing temporary access road, erosion control, pavement markings, signage, security gate, and electrical improvements.

Work will also include other miscellaneous materials, equipment, machinery, superintendence, and labor for constructing these improvements for MDD, Midland, Texas.

A Bid Proposal guaranty is to accompany the Bid, thereby guaranteeing the good faith of the Bidder and that Bidder will enter the written contract. The guaranty is to amount to 5 percent of the total bid and must be in the form of cash or certified check, issued by a bank satisfactory to the City of Midland, or a Bid Bond.

Bidders are expected to inspect site of Work and inform themselves regarding all local conditions.

Information for Bidders, Proposal forms, Specifications, and Plans are on file in the office of the Director of Airports, MDD.

Downloaded documents (PDF file extension format) can be obtained from the PSC Info Exchange website after registering as a Plan Holder with Parkhill via https://parkhill.com/projects-for-bid/ or by contacting Jillian Yenor, Project Coordinator, at jyenor@parkhill.com. No cost or deposit required for downloaded documents.

CITY OF MIDLAND, TEXAS
Marcia Bentley-German, City Secretary

## INSTRUCTIONS TO BIDDERS

IB-1. BID FORMS

Bid shall be submitted on Proposal form in the bound Specifications.

In addition to the completed Proposals, bid forms shall include Bid Security, Financial Statement, and other specified documents. Failure to submit a complete Bid as specified will be considered as sufficient cause for rejection of the Bid.

IB-2. PREPARATION OF PROPOSALS

All blanks in the forms shall be filled in or marked "N.A." (Not Applicable) and all required information shall be included with Proposals. Bid prices shall be written in ink. Receipt of all Addenda issued shall be acknowledged in the space provided on the Addendum. Each Addendum received and the Bid Security shall be enclosed with Proposal. Proposal and accompanying documents shall be enclosed in a sealed envelope, addressed to the City Secretary, 300 N. Loraine, Midland, Texas 79701, marked "Midland Airpark Entry Road Enhancements" with name and address of Bidder also shown thereon. **If Sealed Bid is sent in a mailing envelope, outside of mailing envelope must also have same marking visible.**

IB-3. EXPERIENCE RECORD AND FINANCIAL STATEMENT

Experience Record included herein, shall be filled in, showing completed jobs, of a similar nature to the one covered by Proposal, and Work in progress with contract and bond amounts and percent complete.

A sworn statement of the current financial condition of Bidder shall also be enclosed with Proposal, to provide Owner with information relative to the responsibility of Bidders and their ability to finance and construct the Work. This statement shall be enclosed with Proposal in a separate envelope and will be returned to Bidder upon return of his Bid Security.

TxDOT prequalification can be submitted in lieu of a financial statement with bids; however, financial information may be required of the apparent low Bidder.

IB-4. BID SECURITY

Each Proposal must be accompanied by a Bid Bond, Certified Check, or cash in the amount of not less than 5 percent of the maximum Bid submitted, payable without recourse to the City of Midland, Texas. If a Bid Bond is submitted as Bid Security, it shall be executed by an approved surety company authorized to do business in the State of Texas and accepted according to the latest list of companies holding certificates of authority from the Secretary of the Treasury of the United States of America. Such Bid Security shall be so conditioned if Bidder is awarded Contract and unable or fails to furnish Performance and Payment Bonds and execute Contract within 10 days after date of award, Security shall revert to Owner as compensation for damages which Owner suffers because of such failure by Bidder.

IB-5. PERFORMANCE AND PAYMENT BONDS

With execution and delivery of the Contract Documents, Contractor shall furnish, on the forms provided herein, bonds, as required by the General Conditions, of 100 percent of the total contract price, executed by an approved surety company authorized to do business in the State of Texas, and accepted according to the latest list of companies holding certificates of authority from the Secretary of the Treasury of the United States of America. Performance and Payment Bonds submitted shall be in compliance with Chapter 2253 of the Texas Government Code.

IB-6. INTERPRETATION OF BIDS

No bid will be considered which fails to supply all information indicated, or which has any limitation or provisions placed upon it by Bidder. In case of ambiguity or lack of clearness in Proposal, Owner will adopt the most advantageous construction thereof or reject the bid. Owner reserves the right to accept or reject any or all bids, if it is deemed to be in the best interest of the public. Further, Owner reserves the right to reject any bids because of irregularity or to waive such irregularity if such action is in the public interest.

IB-7. DISPOSITION OF BIDS

Owner expects to make award of the Contracts as soon as possible after the opening of Bids, but specifically reserves the right to hold all Proposals for a period not to exceed 90 days, before making an award. No Proposal, having been opened, may be withdrawn prior to expiration of this 90-day period. Bid Security of all but the successful Bidder will be returned upon making an award.

Contract will be awarded to the responsible bidder submitting the lowest bid complying with the conditions of the Advertisement for Bidders and the Instructions to Bidders.

IB-8. EXAMINATION OF SITE, PLANS, AND SPECIFICATIONS

Before submitting Proposal, each Bidder shall have made a thorough examination of the Site of Work and of the Plans and Specifications, and shall become informed as to the location and nature of the proposed construction, labor conditions and all other matters that may affect the cost and time of completion of the Work upon which he bids. Bidders shall make such investigations of the nature of the Project as deemed necessary and shall assume all responsibility for fully informing themselves of the character of materials which will be encountered. Submission of a Proposal shall be prima facie evidence that Bidder has made such an examination. Contact Aaron Easton, Deputy Director of Airports, (432.560.2200), to schedule a site examination visit.

IB-9. PREBID CONFERENCE

A prebid conference will be held at 1:30 p.m., Wednesday, December 6, 2023, in the Conference Room at Midland International Air & Space Port (MAF). At this time, all interested bidders will be requested to appear and present any questions they may have pertaining to this project. All bidders are urged to attend prebid conference because they will be charged with notice of the matters discussed therein. Attendance to the prebid conference is NOT mandatory.

IB-10. INTERPRETATION OF SPECIFICATIONS PRIOR TO BIDDING

Any questions arising during the advertising period as to the meaning or intent of the Specifications will be answered by an Addendum which will be sent to all who have placed a deposit and/or furnished plans and Contract Documents issued by Parkhill. Engineer shall receive requests for clarifications to Specifications and Plans at least three days prior to the date for receipt of bids.

Receipt of each Addendum shall be acknowledged by Bidder in the space provided and each Addendum shall be enclosed with Proposal when it is submitted. All Addenda shall become a part of these Contract Documents.

IB-11. AVAILABILITY OF PLANS

A. For Bidders

All parties with an interest in the type of work included in the Project covered by these documents, shall be given a reasonable opportunity to examine the documents and prepare a bid or sub-bid. Documents may be examined without charge as noted in the Notice to Bidders.

Downloadable documents (PDF file extension format) can be obtained from the PSC Info Exchange website after registering as a Plan Holder with Parkhill via https://parkhill.com/projects-for-bid/ or through Jillian Yenor, Project Coordinator, at jyenor@parkhill.com. No cost or deposit required for downloaded documents.

B. For Contractor

Contractor will be furnished five sets of Specifications and Plans for his use during construction. This shall include all Plans and Specifications furnished to material suppliers and subcontractors but does not include the executed contract copies. Plans and Specifications for use during construction will be furnished directly only to Contractor. Contractor shall then distribute copies of Plans and Specifications to suppliers, subcontractors, or others, as required for proper execution of the Work.

Should additional sets of documents be desired, they may be purchased, by Contractor only, at the following prices, exclusive of postage or freight charges:

Plans and Specifications are $150.00 per set.

IB-12. SPECIAL PROVISIONS

Attention of Bidders is directed to SPECIAL PROVISIONS included in these documents for requirements concerning Scope of Work, labor, insurance, and similar subjects.

IB-13. PLANT LOCATION AND STORAGE AREA

Contractors bidding on the Work included in this Contract who desire to locate a material storage area or other similar facility on the airport property may secure such site, buildings, or areas by direct negotiation with the Director of Airports, MDD, Midland, Texas. An area located adjacent to the Project area will be identified as available for use by Contractor for staging and material storage.

IB-14. WITHDRAWAL OF PROPOSALS

Any Bidder, upon his or his authorized representative's written request, will be given permission to withdraw his Proposal not later than the time set for opening thereof. At the time of opening of Proposals, when such Proposal is reached, it will be returned to him unread.

IB-15. DISQUALIFICATION OF BIDDERS

Any one or more of the following causes may be considered as sufficient for the disqualification of bidder and the rejection of his bid or bids:

More than one Proposal for the same work from an individual firm, partnership, or corporation under the same or different name.

Evidence of collusion among bidders. Participants in such collusion may not receive recognition as Bidders for any future Work.

Unbalanced Proposals in which the prices for some items are out of proportion to the prices for other items.

Failure to submit a unit price for each item of Work for which a bid price is required by Proposal.

Lack of competency as revealed by the financial statement submitted.

Lack of responsibility as shown by past work judged from workmanship and progress standpoints.

Uncompleted Work which, in the judgment of Owner, might hinder or prevent the prompt completion of additional Work if awarded.

For being in arrears on existing contracts, in litigation with Owner, or having defaulted on a previous contract.

IB-16. MATERIAL GUARANTY

Before any Contract is awarded, Bidder may be required to furnish a complete statement of origin, composition, or manufacture of any or all materials proposed to be used in the construction of the Work, together with samples, which may be subjected to the tests provided for in these Specifications to determine their quality and fitness for the Work.

IB-17. DELETED

IB-18. WAIVER

BY SUBMITTING A BID, EACH BIDDER AGREES TO AND DOES HEREBY WAIVE ANY CLAIM BIDDER HAS OR MAY HAVE AGAINST THE CITY OF MIDLAND, TEXAS, AND CITY EMPLOYEES, AGENTS, AND OFFICERS ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE FOLLOWING:

1. ADMINISTRATION, EVALUATION, OR RECOMMENDATION OF ANY BID;
2. WAIVER OR DELETION OF ANY REQUIREMENT UNDER BID DOCUMENTS OR CONTRACT DOCUMENTS;
3. ACCEPTANCE OR REJECTION OF ANY BIDS; AND
4. AWARD OF CONTRACT.

BY SUBMITTING A BID, BIDDER ACKNOWLEDGES AN UNDERSTANDING OF ALL BIDDING DOCUMENT TERMS AND CONSENTS TO BIDDING PROCESS AND THE POSSIBILITY OF A NEGATIVE ASSESSMENT. BY SUBMITTING A BID, BIDDER ACKNOWLEDGES AND AGREES THAT THERE WAS/IS NO DISPARITY OF BARGAINING POWER BETWEEN BIDDER AND THE CITY OF MIDLAND, TEXAS.

BIDDER AGREES THIS IS THE INTENTIONAL RELINQUISHMENT OF THE LISTED PRESENTLY EXISTING KNOWN RIGHTS.

IB-19. WAIVER OF ATTORNEY FEES

BY EXECUTING THIS CONTRACT, CONTRACTOR AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS/MAY HAVE IN THE FUTURE AGAINST OWNER, REGARDING AWARD OF ATTORNEY FEES, WHICH ARE IN ANY WAY RELATED TO CONTRACT, OR CONSTRUCTION, INTERPRETATION OR BREACH OF CONTRACT. CONTRACTOR SPECIFICALLY AGREES IF CONTRACTOR BRINGS/COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS CONTRACT, CONSTRUCTION, INTERPRETATION, VALIDITY, OR BREACH OF CONTRACT, INCLUDING BUT NOT LIMITED TO ANY ACTION PURSUANT TO PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET. SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, CONTRACTOR AGREES TO ABANDON, WAIVE, AND RELINQUISH ANY AND ALL RIGHTS TO RECOVERY OF ATTORNEY FEES TO WHICH CONTRACTOR MIGHT OTHERWISE BE ENTITLED.

CONTRACTOR AGREES THIS IS VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY EXISTING KNOWN RIGHT. CONTRACTOR ACKNOWLEDGES AN UNDERSTANDING OF ALL TERMS AND CONDITIONS OF CONTRACT. CONTRACTOR FURTHER ACKNOWLEDGES AND AGREES THAT WAS/IS NO DISPARITY OF BARGAINING POWER BETWEEN OWNER AND CONTRACTOR.

THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.

CONTRACTOR AND OWNER ARE RELYING ON THEIR OWN JUDGMENT. EACH PARTY HAD THE OPPORTUNITY TO DISCUSS THIS CONTRACT WITH COMPETENT LEGAL COUNSEL PRIOR TO ITS EXECUTION.

**BID BOND**

THE STATE OF TEXAS )

SURETY'S NO._____

COUNTY OF MIDLAND )

KNOWN ALL MEN BY THESE PRESENTS, THAT_____

_____(hereinafter called "Principal"), as Principal, and_____

_____ (hereinafter called "Surety"), as Surety, are held and firmly bound unto the City of Midland, a home rule municipal corporation of Midland County (hereinafter called "Obligee"), in the amount of_____

_____DOLLARS ($____), for payment whereof said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal submitted a Bid or Proposal to enter a certain written contract with Obligee to perform all Work associated with the Midland Airpark Entry Road Enhancements Project.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, if said Principal shall faithfully, enter such written Contract, then this obligation shall be void; otherwise to remain in full force and effect.

IT IS EXPRESSLY UNDERSTOOD AND AGREED if said Principal should withdraw its Bid any time after such Bid is opened and before official rejection of such Bid or, if successful in securing the award thereof, said Principal should fail to enter into the Contract and furnish satisfactory Performance Bond and Payment Bond, Obligee, in either of such events, shall be entitled and hereby given the right to collect this Bid Bond as liquidated damages.

PROVIDED further if any legal action be filed upon this Bond venue shall lie in Midland County, Texas.

IN WITNESS WHEREOF, the said Principal and Surety do sign and seal this instrument, this day of _____, 20___.

| | |
|---|---|
| _____ | _____ |
| Surety | |
| By _____ | By _____ |
| Address _____ | Address _____ |
| _____ | _____ |

APPROVED AS TO FORM:

_____
City Attorney

NOTE: Attach Power of Attorney

**PROPOSAL**

TO: The Mayor and City Council
City of Midland
Midland, Texas

Date: _____

Gentlemen:

Pursuant to foregoing Notice to Bidders, undersigned Bidder hereby proposes to do all Work and furnish all necessary superintendence, labor, machinery, equipment, tools, and materials, and anything necessary to complete all Work bid, as provided by attached Specifications and shown on Plans, and is bound to acceptance of this Proposal to execute Contract and Bonds per accompanying forms, performing and completing Work within time stated, and furnishing all required guarantees, for the following prices to-wit:

MIDLAND AIRPARK ENTRY ROAD ENHANCEMENTS

| NO. | TxDOT ITEM NUMBER | TxDOT BID CODE | DESCRIPTION | UNIT | QUANTITY | BID UNIT PRICE | BID PRICE |
|---|---|---|---|---|---|---|---|
| **ROADWAY ITEMS** | | | | | | | |
| 1. | 100 | 6002 | Preparing Right of Way | STA | 10 | $ | $ |
| 2. | 104 | 6009 | Removing Concrete (Riprap) | SY | 417 | $ | $ |
| 3. | 104 | 6022 | Removing Concrete (Curb and Gutter) | LF | 400 | $ | $ |
| 4. | 105 | 6011 | Removing Stab Base and Asphalt Pavement (2 to 6 inches) | SY | 3,982 | $ | $ |
| 5. | 110 | 6001 | Excavation (Roadway) | CY | 1,592 | $ | $ |
| 6. | 132 | 6002 | Embankment (Final)(Density Control)(TY A) | CY | 500 | $ | $ |
| 7. | 164 | 6002 | Seeding for Erosion Control | AC | 1.5 | $ | $ |
| 8. | 168 | 6001 | Vegetative Watering | MG | 218 | $ | $ |
| 9. | 247 | 6230 | FL BS (CMP IN PLC)(TY A GR 1-2) (8 inches) | SY | 5,843 | $ | $ |
| 10. | 251 | 6028 | Reworks BS MTL (TY B) (8 inches)(Density Control) | SY | 1,822 | $ | $ |
| 11. | 310 | 6009 | Prime Coat (MC-30) | GAL | 1,148 | $ | $ |
| 12. | 360 | 6016 | Concrete Pavement (Jointed - CPCD)(6 inches) | SY | 107 | $ | $ |
| 13. | 496 | 6007 | Remove Existing Structure (Pipes) | LF | 494 | $ | $ |
| 14. | 502 | 6001 | Barricades, Signs, and Traffic Control | MO | 10 | $ | $ |
| 15. | 506 | | Erosion/Sediment Control | MO | 10 | $ | $ |
| 16. | 529 | | Type C Concrete Curb and Gutter | LF | 567 | $ | $ |
| 17. | 531 | 6002 | Concrete Sidewalks (5 inches) | SY | 334 | $ | $ |
| 18. | 531 | | Pedestrian Curb Ramp | SY | 25 | $ | $ |
| 19. | 666 | 6178 | Reflective Pavement Markings TY II (W)(8 inches)(SLD) | LF | 300 | $ | $ |
| 20. | 666 | 6182 | Reflective Pavement Markings TY II (W)(24inches)(SLD) | LF | 24 | $ | $ |
| 21. | 666 | 6205 | Reflective Pavement Markings TY II (Y)(4 inches)(BRK) | LF | 50 | $ | $ |

| NO. | TxDOT ITEM NUMBER | TxDOT BID CODE | DESCRIPTION | UNIT | QUANTITY | BID UNIT PRICE | BID PRICE |
|---|---|---|---|---|---|---|---|
| 22. | 666 | 6207 | Reflective Pavement Markings TY II (Y)(4 inches)(SLD) | LF | 200 | $ | $ |
| 23. | 666 | 6211 | Reflective Pavement Markings TY II (Y)(8 inches)(SLD) | LF | 835 | $ | $ |
| 24. | 677 | 6001 | Eliminate Existing Pavement Markings (4 inches) | LF | 775 | $ | $ |
| 25. | 3076 | 6041 | 1-1/2-inch Dense-Graded HMA TY-D SAC-A PG70-22 | TON | 475 | $ | $ |
| 26. | 3076 | 6041 | 2-1/5-inch Dense-Graded HMA TY-C SAC-B PG64-22 | TON | 791 | $ | $ |
| | | | | | | **ROADWAY TOTAL** | **$** |

| NO. | TxDOT ITEM NUMBER | TxDOT BID CODE | DESCRIPTION | UNIT | QUANTITY | BID UNIT PRICE | BID PRICE |
|---|---|---|---|---|---|---|---|
| **CHANNEL CROSSING ITEMS** | | | | | | | |
| 27. | 110 | 6002 | Excavation (Channel) | CY | 2,300 | $ | $ |
| 28. | 400 | 6005 | Cement Stabilized Backfill | CY | 23 | $ | $ |
| 29. | 416 | 6002 | Drill Shaft (36 inches) | LF | 560 | $ | $ |
| 30. | 420 | 6014 | CL C CONC (ABUT)(HPC) | CY | 51 | $ | $ |
| 31. | 420 | 6026 | CL C CONC (CAP)(HPC) | CY | 19 | $ | $ |
| 32. | 420 | 6038 | CL C CONC (COL)(HPC) | CY | 9 | $ | $ |
| 33. | 422 | 6002 | REINF CONC CLAB (HPC) | SF | 5,185 | $ | $ |
| 34. | 422 | 6014 | Bridge Sidewalk (HPC) | SF | 78 | $ | $ |
| 35. | 422 | 6016 | Approach Slab (HPC) | CY | 98 | $ | $ |
| 36. | 425 | 6035 | PRESTR CONC GIRDER (TX28) | LF | 593 | $ | $ |
| 37. | 427 | 6003 | Opaque Sealer Finish | SF | 6,222 | $ | $ |
| 38. | 432 | 6002 | Riprap (CONC)(5 inches) | CY | 141 | $ | $ |
| 39. | 450 | 6006 | Rail (TY T223) | LF | 140 | $ | $ |
| 40. | 450 | 6032 | Rail (TY C223) | LF | 140 | $ | $ |
| 41. | 454 | 6020 | Sealed Expansion Joint (4 inches) (SEJ-B) | LF | 100 | $ | $ |
| | | | | | | **CHANNEL CROSSING TOTAL** | **$** |

| **GATE AND ELECTRICAL ITEMS** | | | | | | | |
|---|---|---|---|---|---|---|---|
| 42. | | | Remove Existing Gare Operator and Appurtenances | EA | 1 | $ | $ |
| 43. | | | Remove Existing Intercom and Stand | EA | 2 | $ | $ |
| 44. | | | Install New Keypad and Stand | EA | 2 | $ | $ |
| 45. | | | Install New Hydraulic Gate Operator and Appurtenances | EA | 1 | $ | $ |
| 46. | | | Install New Electrical Panel | EA | 1 | $ | $ |
| 47. | | | Install new Light Pole Assembly (15 feet high) | EA | 1 | $ | $ |

| NO. | TxDOT ITEM NUMBER | TxDOT BID CODE | DESCRIPTION | UNIT | QUANTITY | BID UNIT PRICE | BID PRICE |
|---|---|---|---|---|---|---|---|
| 48. | | | Install New Pedestrian Access Gate | EA | 1 | $ | $ |
| 49. | | | Install New Vehicle Detection Loop | EA | 2 | $ | $ |
| | | | | | | **GATE AND ELECTRICAL TOTAL** | **$** |

| | |
|---|---|
| **SUBTOTAL** | **$** |
| **MOBILIZATION** | **$** |
| **ESTIMATED CONSTRUCTION TOTAL** | **$** |

***Maximum allowable Bid Time for Substantial Completion is as follows: 200 days.**

Bidder shall be required to issue a resale certificate on materials in lieu of paying sales tax on such materials at time of purchase. The City will provide successful Bidder with a sales tax exemption certificate for such materials.

Undersigned Bidder hereby confirms he has visited the Site of the Work and has carefully examined Plans, Specifications, and Contract Documents pertaining to Work covered by this Bid, and prices bid herein are based on minimum wage rates included in Specifications.

Bidder certifies, by submission of this Proposal or acceptance of this Contract, neither Bidder nor Bidder's principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntary excluded from participation in this transaction by any Federal department or agency. Bidder further agrees by submitting this Proposal, Bidder will include this clause without modification in all lower tier transactions, solicitations, Proposals, Contracts, and subcontracts. Where Bidder or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this proposal.

Contractor or subcontractor, by submission of offer/execution of a Contract, certifies it:

a. is not owned or controlled by one or more citizens or nationals of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);
b. has not knowingly entered into any Contract or subcontract for this Project with a Contractor that is a citizen or national of a foreign country on said list or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list.
c. has not procured any product nor subcontracted for the supply of any product for use on the Project that is produced in a foreign country on said list.

Further, Contractor agrees if awarded a Contract resulting from this solicitation, it will incorporate this provision for certification without modification in each Contract and in all lower-tier subcontracts. Contractor may rely upon the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

Contractor shall provide immediate written notice to sponsor if Contractor learns its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. Subcontractor agrees to provide immediate written notice to Contractor, if at any time it learns that its certification was erroneous by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award.

Nothing contained in the foregoing shall be construed to require establishment of a system of records to render, in good faith, certification required by this provision. Knowledge and information of a contractor is not required to exceed that normally possessed by a prudent person in the ordinary course of business dealings.

Bidder hereby agrees to commence Work under this Contract within 10 days of a date specified in written "Notice to Proceed" and to complete Work within the consecutive calendar day framework noted in Contract. Bidder further agrees to pay as liquidated damages, the sum of $ 1,000.00 for each consecutive calendar day beyond each phase of days allowed as hereinafter provided in Article 32 of the General Conditions.

Bidder acknowledges receipt of the following Addendum:_____

_____

Enclosed with this Proposal is a Cashier's or Certified Check for_____

_____ Dollars ($_____)

or, a Proposal Bond in the sum of 5 percent of Greatest Amount Bid Dollars ($ 5 percent of Greatest Bid), which it is agreed shall be collected and retained by Owner as liquidated damages in the event the Proposal is accepted by Owner within 90 days after date advertised for the reception of bids and undersigned fails to execute Contract or required bonds with Owner, under conditions hereof, within 10 days after date said proposal is accepted; otherwise, said check or bond shall be returned to undersigned upon demand.

_____
Contractor

(Seal if Bidder is a Corporation)

By_____

_____
Address

NOTE: Complete all blanks in this and accompanying forms and include proper Bid Security.

**CONTRACT DOCUMENTS**

**CONTRACT**

STATE OF TEXAS

COUNTY OF MIDLAND

THIS CONTRACT, made and entered into this __ day of _____, 2023, by and between the **CITY OF MIDLAND, TEXAS**, a home rule municipal corporation ("***Owner***"), and _____, ("***Contractor***").

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by Owner, and under the conditions expressed in the bond bearing even date herewith, Contractor hereby agrees to commence and complete the construction of items of Work included in this Project, which are described as construction of a 120-foot (two 60-foot spans) concrete pretensioned I-girder bridge, approaches, associated rip-rap, channel grading, rehabilitation of roadway approaches/airport entry roads with hot-mid asphalt, flexible base, sub-grade preparation, grading, and driveway construction. Additionally, the Project includes constructing temporary access road, erosion control, pavement markings, signage, security gate, and electrical improvements.

Work will also include other miscellaneous materials, equipment, machinery, superintendence, and labor for constructing these improvements for the Midland Airpark.

These improvements are shown on the Plans and Specifications entitled "Midland Airpark Entry Road Enhancements" dated November 2023. The Plans and Specifications are hereby incorporated herein by reference for all legal purposes and shall apply to this Contract as if fully set forth herein.

This Contract shall include all extra work in connection therewith. All Work performed hereunder shall be in accordance with those certain General Conditions and Special Provisions, which are attached hereto and hereby incorporated herein by referenced for all legal purposes and shall apply to this Contract as if fully set forth herein. Contractor shall, at Contractor's own proper cost and expense, furnish all materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete said construction, in accordance with conditions and prices stated in Proposal attached hereto, and in accordance with all General Conditions and Special Provisions, and in accordance with Plans, which includes all maps, plats, blueprints, and other Drawings and printed or written explanatory matter thereof, and Specifications therefor, as prepared by Parkhill ("***Engineer***"), each of which has been identified by endorsement of Contractor and Engineer thereon, together with Contractor's written Proposal, and General Conditions and Special Provisions, and Performance Bond and Payment Bond hereto attached; all of which are made a part hereof and collectively evidence and constitute the entire agreement between the parties hereof.

Contractor hereby agrees to commence Work under this Contract within 10 days of a date to be specified in written "Notice to Proceed" and to complete Work under Base Bid identified on Plans within 200 consecutive calendar days from Notice to Proceed.

Contractor further agrees to pay as liquidated damages the sum of $1,000.00 for each consecutive calendar day beyond days allowed as hereinafter provided in Article 32 of the General Conditions.

Owner agrees to pay Contractor from current funds for performance of this Contract in accordance with Proposal submitted therefor, subject to additions and deductions, as provided in specifications, and to make payments on account thereof as provided therein.

**BY EXECUTING THIS CONTRACT, CONTRACTOR AGREES TO WAIVE AND DOES HEREBY WAIVE ANY CLAIM CONTRACTOR HAS OR MAY HAVE AGAINST THE CITY OF MIDLAND, TEXAS, AND PARKHILL, REGARDING AWARD OF ATTORNEY FEES, WHICH ARE IN ANY WAY RELATED TO CONTRACT, OR CONSTRUCTION, INTERPRETATION OR BREACH OF CONTRACT. CONTRACTOR SPECIFICALLY AGREES IF CONTRACTOR BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS CONTRACT, CONSTRUCTION, INTERPRETATION, VALIDITY, OR BREACH OF THIS CONTRACT, INCLUDING BUT NOT LIMITED TO ANY ACTION PURSUANT TO PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, *ET SEQ*., AS AMENDED), CONTRACTOR AGREES TO WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO RECOVERY OF ATTORNEY FEES TO WHICH CONTRACTOR MIGHT OTHERWISE BE ENTITLED.**

**CONTRACTOR AGREES THIS IS INTENTIONAL RELINQUISHMENT OF A PRESENTLY EXISTING KNOWN RIGHT. CONTRACTOR ACKNOWLEDGES THAT CONTRACTOR UNDERSTANDS ALL TERMS AND CONDITIONS OF THIS CONTRACT.**

By execution of this Contract, Contractor hereby represents and warrants to the City of Midland, Texas, that Contractor has read and understood the Contract.

This Contract shall be governed by laws of the State of Texas. Venue of any suit, right or cause of action arising under or in connection with this contract shall lie exclusively in Midland County, Texas. All payments and performance under or connected to this contract shall be deemed to have occurred exclusively in Midland County, Texas.

IN WITNESS WHEREOF, the parties to these presents have executed this Agreement in the year and day first above written.

OWNER:

CITY OF MIDLAND, TEXAS

By_____
Lori Blong, Mayor

ATTEST:

By_____
Marcia Bentley-German, City Secretary

CONTRACTOR:

By_____
Signature

Name, Title: _____
Print

Complete Address:

_____

_____

STATE OF _____

COUNTY OF _____

Before me, _____, on this day,
Notary

personally appeared, _____ (Name of Signer), who

□ is known to me

□ proved to me on the oath of _____
Witness

□ proved to me through _____
Document Description

To be the person whose name is subscribed here in and acknowledged to me execution of the same for purposes and consideration herein expressed.

Given under my hand and seal of office this

_____ day of _____, A.D., _____
Day Month Year

Notary Seal

_____
Signature of Notary Officer

**PERFORMANCE BOND**
SUBMITTED IN COMPLIANCE WITH CHAPTER 2253 OF THE TEXAS GOVERNMENT CODE

STATE OF TEXAS §

COUNTY OF MIDLAND §

KNOW ALL MEN BY THESE PRESENTS: That we, _____ of the City of _____, County of _____, and State of _____, as Principal, and _____ _____ hereinafter called "Surety," are held and firmly bound unto the City of Midland, Texas, a home rule municipal corporation of Midland County, Texas, (hereinafter called the City-Obligee), in the penal sum of _____ _____ DOLLARS, ($_____) lawful money of the United States, well and truly to be paid to the City of Midland, Texas, for payment whereof said Principal and Surety bind themselves and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has entered a certain written contract with the Owner-Obligee, dated the ____ day of _____ 20____, to the Midland Airpark Entry Road Enhancements, Midland, Texas specifically including in the Scope of this Work and Bond, additional maintenance guaranty provisions set forth in Contract conditions, which Contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein, as well as the Principal's primary obligation to perform according to Plans and Specifications.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, if said Principal shall faithfully perform Work in accordance with Plans, Specifications, Instructions to Bidders, General and Special Conditions, and other Contract Documents, including any Addendums thereto, then this obligation shall be void; otherwise, to remain in full force and effect.

PROVIDED further if any legal action be filed upon this Bond venue shall lie in Midland County, State of Texas.

PROVIDED further this Performance Bond is submitted in compliance with Chapter 2253 of the Texas Government Code.

Surety, for value received, stipulates and agrees no change, extension of time, alteration, or addition to terms of the Contract, or to the Work performed thereunder, or Plans, Specifications, or Drawings accompanying the same, or any assignment of the Contract as may be provided for in Instructions to Bidders, shall in any way affect its obligation on this Bond, and it does waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract, assignment thereof, or to the Work to be performed thereunder.

IN WITNESS WHEREOF said Principal and Surety have signed and sealed this instrument, this ____ day of _____, 20__.

| | |
|---|---|
| _____ | _____ |
| Contractor | Surety |
| By _____ | By _____ |
| | (Title) |

NOTE: If signed by an officer of Surety Company, there must be on file a certified extract from by-laws showing this person has authority to sign such obligation. If signed by an Attorney in Fact, Owner must be furnished with a copy of Power of Attorney for their files.

**PAYMENT BOND**

SUBMITTED IN COMPLIANCE WITH CHAPTER 2253 OF THE TEXAS GOVERNMENT CODE

STATE OF TEXAS §

COUNTY OF MIDLAND §

KNOW ALL MEN BY THESE PRESENTS: That we, _____

of the City of _____, County of _____, and State of _____, as principal, and _____, hereinafter called "Surety," are held and firmly bound unto the City of Midland, Texas, a home rule municipal corporation of Midland County, Texas, (hereinafter called "City-Obligee"), in the penal sum of _____ DOLLARS, ($_____) lawful money of the United States, well and truly to be paid to the City of Midland, for payment whereof said Principal and Surety bind themselves and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has entered into a certain written contract with Owner-Obligee, dated the ____ day of _____ 20___, to the Midland Airpark Entry Road Enhancements, Midland, Texas which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, the condition of this obligation is if said Principal shall pay all claimants supplying labor and material to him or a subcontractor in the prosecution of the Work provided for in said Contract, then this obligation shall be null and void; otherwise, to remain in full force and effect.

PROVIDED further if any legal action be filed upon this Bond venue shall lie in Midland County, State of Texas.

PROVIDE further this Payment Bond is submitted in compliance with Chapter 2253 of the Texas Government Code.

Surety, for value received, stipulates and agrees no change, extension of time, alteration, or addition to terms of this Contract, or to Work performed thereunder, or Plans, Specifications, or Drawings accompanying the same, or any assignment of Contract as may be provided in Instructions to Bidders, shall in any way affect its obligation on this Bond, and it does waive notice of any such change, extension of time, alteration, or addition to terms of the Contract, assignment thereof, or to Work to be performed thereunder.

WITNESS our hands this the _____ day of _____, 20___.

| Contractor | Surety |
| --- | --- |
| By _____ | By _____ (Title) |

NOTE: If signed by an officer of Surety Company, there must be on file a certified extract from by-laws showing this person has authority to sign such obligation. If signed by an Attorney in Fact, Owner must be furnished with a copy of Power of Attorney for their files.

**CERTIFICATE OF INSURANCE**

TO: CITY OF MIDLAND
MIDLAND INTERNATIONAL AIR & SPACE PORT
MIDLAND, TEXAS

Date _____

Type of Project: Midland Airpark Entry Road Enhancements

THIS IS TO CERTIFY THAT _____
(Name of Insured)

is, at the date of this certificate, insured by this Company with respect to business operations hereinafter described, for types of Insurance and in accordance with provisions of standard policies used by this Company, and further hereinafter described. Exceptions to standard policy noted on reverse side hereof.

SAMPLE ONLY
SUCCESSFUL
CONTRACTOR
SHALL PROVIDE
CERTIFICATE FROM
INSURANCE
HIS CARRIER

| TYPE OF INSURANCE | | | |
|---|---|---|---|
| Policy No | Effective | Expires | Limits of Liability |
| Workmen's Compensation | | Public Liability | |
| 1 person $_____ | | Liability | |
| 1 accident $_____ | | Contingent | |
| 1 person $_____ | | Liability | |
| 1 accident $_____ | | | |
| Property Damage | | | |
| Builder's Risk | | | |
| Automobile | | | |
| Other | | | |

Foregoing Policies (do) (do not) cover all sub-contractors.

Locations Covered:_____

Description of Operations Covered:_____

The noted policies either in the body thereof or by appropriate endorsement provide they may not be changed or cancelled by insurer in less than the legal time required after insured receives written notice of such change or cancellation, or, in case there is no legal requirement, in less than five days after insured receives such written notice.

SEND EIGHT COPIES OF THIS
CERTIFICATE TO OWNER

_____
(Name of Insurer)

By _____

Title _____

Phone _____

**NOTE: Name CITY OF MIDLAND and PARKHILL as additional insureds on required insurance policies.**

# QUALIFICATIONS STATEMENT

**ARTICLE 1—GENERAL INFORMATION**

12.01 Provide contact information for the Business:

| | | | |
|---|---|---|---|
| Legal Name of Business: | | | |
| Corporate Office | | | |
| Name: | | Phone number: | |
| Title: | | Email address: | |
| Business address of corporate office: | | | |
| Local Office | | | |
| Name: | | Phone number: | |
| Title: | | Email address: | |
| Business address of local office: | | | |

12.02 Provide information on the Business's organizational structure:

| | | | |
|---|---|---|---|
| Form of Business: | ☐ Sole Proprietorship ☐ Partnership ☐ Corporation | | |
| ☐ Limited Liability Company ☐ Joint Venture comprised of the following companies: | | | |
| | 1. | | |
| | 2. | | |
| | 3. | | |
| Provide a separate Qualification Statement for each Joint Venturer. | | | |
| Date Business was formed: | | State in which Business was formed: | |
| Is this Business authorized to operate in the Project location? | ☐ Yes ☐ No ☐ Pending | | |

12.03 Identify all businesses that own Business in whole or in part (25% or greater), or that are wholly or partly (25% or greater) owned by Business:

| | | | |
|---|---|---|---|
| Name of business: | | Affiliation: | |
| Address: | | | |
| Name of business: | | Affiliation: | |
| Address: | | | |
| Name of business: | | Affiliation: | |
| Address: | | | |


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12.04 Provide information regarding the Business's officers, partners, and limits of authority.

| | | | |
|---|---|---|---|
| Name: | | Title: | |
| Authorized to sign contracts: ☐ Yes ☐ No | | Limit of Authority: | $ |
| Name: | | Title: | |
| Authorized to sign contracts: ☐ Yes ☐ No | | Limit of Authority: | $ |
| Name: | | Title: | |
| Authorized to sign contracts: ☐ Yes ☐ No | | Limit of Authority: | $ |
| Name: | | Title: | |

**ARTICLE 2—LICENSING**

2.01 Provide information regarding licensure for Business:

| | | | |
|---|---|---|---|
| Name of License: | | | |
| Licensing Agency: | | | |
| License No: | | Expiration Date: | |
| Name of License: | | | |
| Licensing Agency: | | | |
| License No: | | Expiration Date: | |

**ARTICLE 3—DIVERSE BUSINESS CERTIFICATIONS**

3.01 Provide information regarding Business's Diverse Business Certification, if any. Provide evidence of current certification.

| Certification | Certifying Agency | Certification Date |
|---|---|---|
| ☐ Disadvantaged Business Enterprise | | |
| ☐ Minority Business Enterprise | | |
| ☐ Woman-Owned Business Enterprise | | |
| ☐ Small Business Enterprise | | |
| ☐ Disabled Business Enterprise | | |
| ☐ Veteran-Owned Business Enterprise | | |
| ☐ Service-Disabled Veteran-Owned Business | | |
| ☐ HUBZone Business (Historically Underutilized) Business | | |
| ☐ Other | | |
| ☐ None | | |


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**ARTICLE 4—SAFETY**

4.01 Provide information regarding Business's safety organization and safety performance.

| Name of Business's Safety Officer: | | |
|---|---|---|
| Safety Certifications | | |
| Certification Name | Issuing Agency | Expiration |
| | | |
| | | |

4.02 Provide Worker's Compensation Insurance Experience Modification Rate (EMR), Total Recordable Frequency Rate (TRFR) for incidents, and Total Number of Recorded Manhours (MH) for the last 3 years and the EMR, TRFR, and MH history for the last 3 years of any proposed Subcontractor(s) that will provide Work valued at 10% or more of the Contract Price. Provide documentation of the EMR history for Business and Subcontractor(s).

| Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Company | EMR | TRFR | MH | EMR | TRFR | MH | EMR | TRFR | MH |
| | | | | | | | | | |
| | | | | | | | | | |

**ARTICLE 5—FINANCIAL**

5.01 Provide information regarding the Business's financial stability. Provide the most recent audited financial statement, and if such audited financial statement is not current, also provide the most current financial statement.

| Financial Institution: | | |
|---|---|---|
| Business address: | | |
| Date of Business's most recent financial statement: | | ☐ Attached |
| Date of Business's most recent audited financial statement: | | ☐ Attached |
| Financial indicators from the most recent financial statement | | |
| Contractor's Current Ratio (Current Assets ÷ Current Liabilities) | | |
| Contractor's Quick Ratio ((Cash and Cash Equivalents + Accounts Receivable + Short Term Investments) ÷ Current Liabilities) | | |

**ARTICLE 6—SURETY INFORMATION**

6.01 Provide information regarding the surety company that will issue required bonds on behalf of the Business, including but not limited to performance and payment bonds.


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| | | | |
|---|---|---|---|
| Surety Name: | | | |
| Surety is a corporation organized and existing under the laws of the state of: | | | |
| Is surety authorized to provide surety bonds in the Project location? | ☐ Yes ☐ No | | |
| Is surety listed in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" published in Department Circular 570 (as amended) by the Bureau of the Fiscal Service, U.S. Department of the Treasury?<br>☐ Yes ☐ No | | | |
| Mailing Address (principal place of business): | | | |
| Physical Address (principal place of business): | | | |
| Phone (main): | | Phone (claims): | |

**ARTICLE 7—INSURANCE**

7.01 Provide information regarding Business's insurance company(s), including but not limited to its Commercial General Liability carrier. Provide information for each provider.

| | | | |
|---|---|---|---|
| Name of insurance provider, and type of policy (CLE, auto, etc.): | | | |
| Insurance Provider | | Type of Policy (Coverage Provided) | |
| | | | |
| | | | |
| | | | |
| | | | |
| Are providers licensed or authorized to issue policies in the Project location? | | ☐ Yes ☐ No | |
| Does provider have an A.M. Best Rating of A-VII or better? | | ☐ Yes ☐ No | |
| Mailing Address (principal place of business): | | | |
| Physical Address (principal place of business): | | | |
| Phone (main): | | Phone (claims): | |

**ARTICLE 8—CONSTRUCTION EXPERIENCE**

8.01 Provide information that will identify the overall size and capacity of the Business.

| | |
|---|---|
| Average number of current full-time employees: | |
| Estimate of revenue for the current year: | |
| Estimate of revenue for the previous year: | |


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8.02 Provide information regarding the Business's previous contracting experience.

| | | | | |
|---|---|---|---|---|
| Years of experience with projects like the proposed project: | | | | |
| As a general contractor: | | As a joint venturer: | | |
| Has Business, or a predecessor in interest, or an affiliate identified in Paragraph 1.03: | | | | |
| Been disqualified as a Bidder by any local, state, or federal agency within the last 5 years? ☐ Yes ☐ No | | | | |
| Been barred from contracting by any local, state, or federal agency within the last 5 years? ☐ Yes ☐ No | | | | |
| Been released from a Bid in the past 5 years? ☐ Yes ☐ No | | | | |
| Defaulted on a project or failed to complete any contract awarded to it? ☐ Yes ☐ No | | | | |
| Refused to construct or refused to provide materials defined in the contract documents or in a change order? ☐ Yes ☐ No | | | | |
| Been a party to any currently pending litigation or arbitration? ☐ Yes ☐ No | | | | |
| Provide full details in a separate attachment if the response to any of these questions is Yes. | | | | |

8.03 List all projects currently under contract in Schedule A and provide indicated information.

8.04 List a minimum of three and a maximum of six projects completed in the last 5 years in Schedule B and provide indicated information to demonstrate the Business's experience with projects similar in type and cost of construction.

8.05 In Schedule C, provide information on key individuals whom Business intends to assign to the Project. Provide resumes for those individuals included in Schedule C. Key individuals include the Project Manager, Project Superintendent, Quality Manager, and Safety Manager. Resumes may be provided for Business's key leaders as well.

**ARTICLE 9—REQUIRED ATTACHMENTS**

9.01 Provide the following information with the Statement of Qualifications:

A. If Business is a Joint Venture, separate Qualifications Statements for each Joint Venturer, as required in Paragraph 1.02.

B. Diverse Business Certifications if required by Paragraph 3.01.

C. Certification of Business's safety performance if required by Paragraph 4.02.

D. Financial statements as required by Paragraph 5.01.

E. Attachments providing additional information as required by Paragraph 8.02.

F. Schedule A (Current Projects) as required by Paragraph 8.03.

G. Schedule B (Previous Experience with Similar Projects) as required by Paragraph 8.04.

H. Schedule C (Key Individuals) and resumes for the key individuals listed, as required by Paragraph 8.05.

I. Additional items as pertinent.


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This Statement of Qualifications is offered by:

Business: _____
*(typed or printed name of organization)*

By: _____
*(individual's signature)*

Name: _____
*(typed or printed)*

Title: _____
*(typed or printed)*

Date: _____
*(date signed)*

*(If Business is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)*

Attest: _____
*(individual's signature)*

Name: _____
*(typed or printed)*

Title: _____
*(typed or printed)*

Address for giving notices:

_____

_____

_____

Designated Representative:

Name: _____
*(typed or printed)*

Title: _____
*(typed or printed)*

Address:

_____

_____

_____

Phone: _____

Email: _____


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**Schedule A—Current Projects**

| | | | | | |
|---|---|---|---|---|---|
| Name of Organization | | | | | |
| Project Owner | | | Project Name | | |
| General Description of Project | | | | | |
| Project Cost | | | Date Project | | |
| Key Project Personnel | Project Manager | Project Superintendent | Safety Manager | Quality Control Manager | |
| Name | | | | | |
| Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference) | | | | | |
| | Name | Title/Position | Organization | Telephone | Email |
| Owner | | | | | |
| Designer | | | | | |
| Construction Manager | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Project Owner | | | Project Name | | |
| General Description of Project | | | | | |
| Project Cost | | | Date Project | | |
| Key Project Personnel | Project Manager | Project Superintendent | Safety Manager | Quality Control Manager | |
| Name | | | | | |
| Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference) | | | | | |
| | Name | Title/Position | Organization | Telephone | Email |
| Owner | | | | | |
| Designer | | | | | |
| Construction Manager | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Project Owner | | | Project Name | | |
| General Description of Project | | | | | |
| Project Cost | | | Date Project | | |
| Key Project Personnel | Project Manager | Project Superintendent | Safety Manager | Quality Control Manager | |
| Name | | | | | |
| Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference) | | | | | |
| | Name | Title/Position | Organization | Telephone | Email |
| Owner | | | | | |
| Designer | | | | | |
| Construction Manager | | | | | |


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**Schedule B—Previous Experience with Similar Projects**

| | | | | | |
|---|---|---|---|---|---|
| Name of Organization | | | | | |
| Project Owner | | | Project Name | | |
| General Description of Project | | | | | |
| Project Cost | | | Date Project | | |
| Key Project Personnel | Project Manager | Project Superintendent | Safety Manager | Quality Control Manager | |
| Name | | | | | |
| Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference) | | | | | |
| | Name | Title/Position | Organization | Telephone | Email |
| Owner | | | | | |
| Designer | | | | | |
| Construction Manager | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Project Owner | | | Project Name | | |
| General Description of Project | | | | | |
| Project Cost | | | Date Project | | |
| Key Project Personnel | Project Manager | Project Superintendent | Safety Manager | Quality Control Manager | |
| Name | | | | | |
| Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference) | | | | | |
| | Name | Title/Position | Organization | Telephone | Email |
| Owner | | | | | |
| Designer | | | | | |
| Construction Manager | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Project Owner | | | Project Name | | |
| General Description of Project | | | | | |
| Project Cost | | | Date Project | | |
| Key Project Personnel | Project Manager | Project Superintendent | Safety Manager | Quality Control Manager | |
| Name | | | | | |
| Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference) | | | | | |
| | Name | Title/Position | Organization | Telephone | Email |
| Owner | | | | | |
| Designer | | | | | |
| Construction Manager | | | | | |


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**Schedule B—Previous Experience with Similar Projects**

| | | | | |
|---|---|---|---|---|
| Name of Organization | | | | |
| Project Owner | | Project Name | | |
| General Description of Project | | | | |
| Project Cost | | Date Project | | |
| Key Project Personnel | Project Manager | Project Superintendent | Safety Manager | Quality Control Manager |
| Name | | | | |

Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)

| | Name | Title/Position | Organization | Telephone | Email |
|---|---|---|---|---|---|
| Owner | | | | | |
| Designer | | | | | |
| Construction Manager | | | | | |

| | | | | |
|---|---|---|---|---|
| Project Owner | | Project Name | | |
| General Description of Project | | | | |
| Project Cost | | Date Project | | |
| Key Project Personnel | Project Manager | Project Superintendent | Safety Manager | Quality Control Manager |
| Name | | | | |

Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)

| | Name | Title/Position | Organization | Telephone | Email |
|---|---|---|---|---|---|
| Owner | | | | | |
| Designer | | | | | |
| Construction Manager | | | | | |

| | | | | |
|---|---|---|---|---|
| Project Owner | | Project Name | | |
| General Description of Project | | | | |
| Project Cost | | Date Project | | |
| Key Project Personnel | Project Manager | Project Superintendent | Safety Manager | Quality Control Manager |
| Name | | | | |

Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)

| | Name | Title/Position | Organization | Telephone | Email |
|---|---|---|---|---|---|
| Owner | | | | | |
| Designer | | | | | |
| Construction Manager | | | | | |


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**Schedule C—Key Individuals**

| **Project Manager** | | | |
|---|---|---|---|
| Name of individual | | | |
| Years of experience as project manager | | | |
| Years of experience with this organization | | | |
| Number of similar projects as project manager | | | |
| Number of similar projects in other positions | | | |
| Current Project Assignments | | | |
| Name of assignment | | Percent of time used for this project | Estimated project completion date |
| | | | |
| | | | |
| | | | |
| Reference Contact Information (listing names indicates approval to contact named individuals as a reference) | | | |
| Name | | Name | |
| Title/Position | | Title/Position | |
| Organization | | Organization | |
| Telephone | | Telephone | |
| Email | | Email | |
| Project | | Project | |
| Candidate's role on project | | Candidate's role on project | |

| **Project Superintendent** | | | |
|---|---|---|---|
| Name of individual | | | |
| Years of experience as project superintendent | | | |
| Years of experience with this organization | | | |
| Number of similar projects as project superintendent | | | |
| Number of similar projects in other positions | | | |
| Current Project Assignments | | | |
| Name of assignment | | Percent of time used for this project | Estimated project completion date |
| | | | |
| | | | |
| | | | |
| Reference Contact Information (listing names indicates approval to contact named individuals as a reference) | | | |
| Name | | Name | |
| Title/Position | | Title/Position | |
| Organization | | Organization | |
| Telephone | | Telephone | |
| Email | | Email | |
| Project | | Project | |
| Candidate's role on project | | Candidate's role on project | |

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| **Safety Manager** | | | |
|---|---|---|---|
| Name of individual | | | |
| Years of experience as project manager | | | |
| Years of experience with this organization | | | |
| Number of similar projects as project manager | | | |
| Number of similar projects in other positions | | | |
| Current Project Assignments | | | |
| Name of assignment | | Percent of time used for this project | Estimated project completion date |
| | | | |
| | | | |
| | | | |
| Reference Contact Information (listing names indicates approval to contact named individuals as a reference) | | | |
| Name | | Name | |
| Title/Position | | Title/Position | |
| Organization | | Organization | |
| Telephone | | Telephone | |
| Email | | Email | |
| Project | | Project | |
| Candidate's role on project | | Candidate's role on project | |

| **Quality Control Manager** | | | |
|---|---|---|---|
| Name of individual | | | |
| Years of experience as project superintendent | | | |
| Years of experience with this organization | | | |
| Number of similar projects as project superintendent | | | |
| Number of similar projects in other positions | | | |
| Current Project Assignments | | | |
| Name of assignment | | Percent of time used for this project | Estimated project completion date |
| | | | |
| | | | |
| | | | |
| Reference Contact Information (listing names indicates approval to contact named individuals as a reference) | | | |
| Name | | Name | |
| Title/Position | | Title/Position | |
| Organization | | Organization | |
| Telephone | | Telephone | |
| Email | | Email | |
| Project | | Project | |
| Candidate's role on project | | Candidate's role on project | |


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**EQUIPMENT SCHEDULE**

Bidder should list major equipment available and serviceable for use on this Work.

Portion of Work Bidder proposes to sublet, if any:

Dated this _____ day of _____, 20____.

By _____

Title _____

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of_____§

County of_____§

_____ , being first duly sworn, deposes and says that:

(1) He is_____of_____the Bidder that has submitted the attached Bid;

(2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

(3) Such Bid is genuine and is not a collusive or sham Bid;

(4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including this affiant, has in any way colluded, conspired, connived, or agreed, directly or indirectly, with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix an overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any advantage against the_____(Local Public Agency) or any person interested in the proposed contract; and

(5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(signed) _____

_____
Title

Subscribed and sworn to before me

this_____day of_____,20___.

_____
My commission expires_____, 20___.

# Debarment / Suspension Certification

I,_____, hereby certify that I have checked on the federal
(Authorized Representative of Recipient)

System for Award Management (www.sam.gov) website and determined that _____

_____ is not shown as an "excluded party" that is debarred,
(Name of Entity)

suspended or otherwise excluded from or ineligible for participation in federal assistance programs under Executive Order 12549. (See 2 CFR Part 180 and 2 CFR Part 1532 for additional information on the federal governmentwide debarment and suspension system for nonprocurement programs and activities.)

I understand that a false statement herein may subject me to penalties under federal and state laws relating to filing false statements and other relevant statutes.

_____ _____
Signature Date

_____
Title

_____
Name of Recipient

**Verifying prime contractors and subcontractors for construction, equipment, supplies and services:** Using the www.sam.gov website, the recipient must verify prior to awarding the contract that the prime Contractor is not listed as an "excluded party" that is debarred, suspended, or otherwise excluded from or ineligible. Once any subcontractors are known, they also must be verified as not listed as an "excluded party" prior to award of a subcontract. The recipient must print a dated record of the verification from the www.sam.gov website and retain a copy that is available for review by TWDB. The prime contractors and subcontractors must be verified prior to the contract award or the costs may be disallowed.

# SPECIAL PROVISIONS

## SP-1 SCOPE OF WORK

Work to be accomplished under these Specifications including Plans shall consist of:

1.1 Principal items of Work are set forth in specific detail in the Proposal Section of these Specifications; however, Work may be generally described as construction of a 120-foot (two 60-foot spans) concrete pretensioned I-girder bridge, approaches, associated rip-rap, channel grading, rehabilitation of roadway approaches/airport entry roads with hot-mix asphalt, flexible base, sub-grade preparation, grading, and driveway construction. Additionally, the Project includes constructing temporary access road, erosion control, pavement markings, signage, security gate, and electrical improvements.

1.2 Work will also include other miscellaneous materials, equipment, machinery, superintendence, and labor for constructing these improvements for the Midland Airpark (MDD), Midland, Texas.

1.3 Contractor shall furnish all labor, materials, and equipment necessary to complete Work called for in these Specifications and shown on the Plans.

1.4 Payment for various items of Work will be made as specified under various payment articles of Technical Sections.

## SP-2 CONTRACT DOCUMENTS

All Work covered by this Contract shall be done in accordance with Contract Documents described in the General Conditions. Drawings included in documents consist of the plans entitled “Midland Airpark Entry Road Enhancements,” dated November 2023.

Bidders shall be thoroughly familiar with all Drawings and Specifications. Contractor shall be responsible for satisfactory completion of all Work shown on Drawings or specified.

Intent of Plans and Specifications is to prescribe a complete Work or improvement which Contractor undertakes to do in full compliance with Plans, Specifications, Special Provisions, Proposal, and Contract. Contractor shall do all Work including such additional, extra, and incidental Work considered necessary to complete the Project in a satisfactory and acceptable manner, as provided in Plans, Proposal, and Contract. Unless otherwise provided in Specifications, Special Provisions, or Contract, Contractor shall furnish all materials, equipment, tools, labor, and incidentals necessary to prosecute completion of Work.

Contract Documents are complementary and that called for by any one entity shall be as binding as if called for by all. In case of conflict between Contract Documents, priority of interpretation shall be in the following order:

- Signed Contract,
- Performance Bond,
- Special Bonds (if any),
- Proposal,
- Special Provisions,
- Notice to Bidders,
- Instructions to Bidders,
- Technical Specifications,
- Plans, and
- General Conditions of Contract.

## SP-3 TIME AND ORDER OF COMPLETION

Contractor is permitted to prosecute certain portions of Work in order and manner of own choosing to the best interest of the Project; however, Work shall be conducted in such manner and with such materials, equipment, and labor as required to ensure completion in accordance with Plans and Specifications within time stated in Proposal and Contract. Contractor shall furnish Parkhill with proposed progress schedule and Parkhill shall approved schedule before Work is commenced on Project.

Contractor is reminded approved material submittals are required before incorporation of materials into this Project. To avoid delays in Work progress, provide complete information to Parkhill as early as possible for review and approval.

Contractor will be required to execute various portions of the Project in phases to maintain usage of airport facilities as well as safety during the entire Project. Contractor will be allowed to develop own phasing plan which will meet phasing intent shown on Plans. Contractor phasing plan will be subject to Parkhill approval.

Other Contractors may perform Work for Owner in the same general area as that covered under this Contract. Contractor shall be expected to coordinate his Work with Work of other Contractors as required to ensure all Work can be carried out with the least possible interference with operation of other contractors or Owner. Contractor coordination with other contractors shall require Parkhill approval. Owner reserves the right to control and direct sequence of operations in areas others will be working. Provision shall be made for other contractors to have suitable space to Work, store materials, as well as access to these areas.

Contractor shall schedule Work well in advance of actual operations and keep Parkhill advised of this schedule so close coordination can be maintained with Director of Airports and other contractors. Portions of aircraft aprons will be closed as required for proper execution of Work, but at least three days' notice will be required before closing any portion of an aircraft apron. Director of Airports will file Notice to Airmen (NOTAMs) required for various construction operations.

When closing portions of airfield for construction, keep time closed to a minimum. Contractor is required to provide, install, and maintain approved closed aircraft apron barricades in accordance with the latest FAA Advisory Circular 150/5370 and other applicable FAA regulations. No separate measurement or payment shall be made for closed aircraft apron barricades. Coordinate all operations through Parkhill and Director of Airports.

## SP-4 LIMITATION OF OPERATION

Complete each item of Work without delay. In no instance shall Contractor be permitted to transfer forces from uncompleted Work to new Work without Parkhill permission. Contractor is required to submit a schedule of operations to Parkhill for approval. Contractor shall not commence new Work to the prejudice of Work already started.

Contractor shall take all necessary precautions to ensure operating aircraft and passenger safety as well as that of Contractor equipment and personnel. When working adjacent to the aircraft apron, Contractor shall provide all such equipment with a flag on a staff attached to equipment, so flag is readily visible. Flag shall be not less than 3 feet square, checkered pattern of international orange-and-white squares, not less than 1-foot on each side. Contractor shall estimate all difficulties to be encountered. Keep equipment not actually in operation clear of aircraft movement areas. Personnel shall not enter areas of Airport where aircraft are operating without specific permission.

Nighttime construction activities are not permitted without prior approval of Parkhill and Director of Airports. If required and permitted, nighttime construction activities shall be as noted on Plans and coordinated, through Parkhill, with Director of Airports. During nighttime construction, Contractor shall provide all equipment traveling within Airport area with a flashing light that is always visible and operational.

Coordinate all operations through Parkhill and Director of Airports, so no interference with aircraft traffic on active runways, taxiways, or aprons will result from Contractor operations. Construction activities are not allowed within safety areas of any active runway/taxiway unless approved by Parkhill and Director of Airports.

- Taxiway safety area is the area within 90 feet of the centerline of any taxiway/taxilane.
- Runway safety area is the area within 250 feet of the centerline of any runway when aircraft are operating under Visual Flight Rule (VFR, clear weather) conditions, or within 570 feet of the centerline of any runway when aircraft are operating under Instrument Flight Rule (IFR, inclement weather) conditions.

As required, Contractor shall maintain flagpersons to direct construction traffic to cross or travel along any active taxiway, apron, or runway. Direct traffic away from these facilities when possible and never allow traffic to cross an active runway, taxiway, or apron without proper clearance.

Contractor shall schedule Work well in advance of actual operations and keep Parkhill advised of this schedule so close coordination can be maintained with Director of Airports. Aprons will be closed as required for proper execution of Work as provided in previous Articles.

Contractor shall exert every effort to maintain safety of aircraft traffic and be acquainted with rules and regulations concerning aircraft traffic safety. Maintain FAA Advisory Circular 150/5370-2G, "Operational Safety on Airports during Construction," requirements. Violations of safety rules by Contractor workers shall result in discharge of such workers in accordance with General Conditions. Continued violations of safety rules and regulations by Contractor, after Parkhill or MAF notify Contractor of such violations, shall constitute grounds for suspending Contractor operations until steps are taken to insure a safe operation.

Contractor's field office and material storage area may be located inside secure area of Airport but outside safety areas of taxiways/runways near construction. Contractor shall provide an area for parking all equipment not used for construction purposes, as well as for parking employee vehicles. This area shall be located away from the Airport operational area (AOA) in an area approved by Parkhill and Director of Airports. No employee or other unauthorized vehicles will be allowed within the AOA. If Contractor needs field office outside of secure area, Contractor can install temporary security fencing around office site. Airport must approve security fence.

Contractor shall utilize existing vehicle gates for employees and subcontractors. Contractor shall be responsible for allowing only authorized personnel to enter the AOA through this gate. Contractor shall always control entrance through the gate by employees or subcontractors entering/exiting the gate.

Hauling routes shall not be along/across any paved airport street, road, apron, taxiway, or runway without specific written authorization from Parkhill and Director of Airports. Any damage incurred by Contractor equipment shall be repaired by and at Contractor expense and as required by Parkhill and Director of Airports.

Contractor shall maintain pavement surfaces of runways, taxiways, and aprons, allowed to be used as hauling routes, in a clean condition, suitable for use by aircraft, as determined by Director of Airports.

Contractor is subject to a preconstruction conference to discuss phasing and Project safety control after award of Contract.

SP-5 CONSTRUCTION ACTIVITY

When construction activity is performed on/adjacent to AOA, the following rules and regulations apply unless otherwise authorized by Airport Operations. **Contractor must have all picture-badged supervisors fingerprinted. Fingerprinting cost is $70.00 per person, paid by Contractor**.

5-1 DELETED.

5-2 DELETED.

5-3 Haul Routes: Establishment of AOA haul routes must be authorized through Airport Operations. Contractor shall furnish, erect, maintain, and remove flags and barricades for delineation of haul routes.

5-4 Cranes: Any construction activity utilizing a crane or other hoisting device shall have prior written approval of FAA. Contractor shall be responsible for filing prescribed forms for airspace clearance in accordance with Part 77 of Federal Aviation Regulations. Applications for airspace clearance must be submitted at least 30 days before construction activities. To avoid construction delays, Contractor is urged to timely file prescribed forms. Airspace clearance from FAA must be approved before erection of crane or other hoisting device. The following information is required:

A. Location of equipment.
B. Maximum extendable height.
C. Duration of use.
D. Daily hours of operation.

Top of crane must be marked by a 3- by 3-foot orange-and-white checkered flag and lowered at night and during periods of poor visibility as directed by Airport Operations. Cranes must be approved in writing by the FAA (FAA Form 7460-1). Contractor shall notify Parkhill at least 48 hours before erecting crane.

5-5 DELETED.

5-6 Trenches and Excavations: No trenches or excavations allowed within these areas:

A. Within 250 feet parallel to runway centerline.
B. Within 90 feet parallel to taxiway or apron taxiway centerline.
C. Within 1,000 feet of end of runway.

*EXCEPTION: Authorization considered on a case-by-case basis by Airport Operations.*

5-7 Stockpiles of Material: No stockpiled material allowed within these areas:

A. Within 500 feet parallel to runway centerline.
B. Within 90 feet parallel to taxiway or apron taxiway centerline.
C. Within 1,000 feet of end of runway.

*EXCEPTION: Authorization considered on a case-by-case basis by Airport Operations.*

5-8 DELETED.

5-9 Protection of Airfield Areas: Utilize these procedures to prevent inadvertent entry by aircraft or vehicles into closed sections of taxiways, runways, or aprons. Contractor shall provide all materials and labor to furnish, erect, maintain, and remove these items as subsidiary to other items in Project.

A. When any apron or other AOA is closed, area will be protected by cones and flashing lights set up at entrances to closed areas.
B. Appropriate NOTAMs will be issued on closure and associated maintenance or construction activity.
C. Centerline and edge lights will be turned off, removed, obliterated, or disconnected as dictated by circumstances requiring closure.

D. All excavations in existing pavement areas (e.g. mudjacking repairs) must have hole protected by cones and flashing lights, in addition to cones and lights marking closed area.
E. Major excavations (constructing new taxiways, ramps, other construction activity) adjacent to apron, or major repairs of existing taxiway/runway will be protected by 10-inch-wide by 8-foot-long plastic, FAA-approved barricades (striped orange and white) with at least two red-flashing lights on top of each barricade.
F. In some cases, taxiway centerline striping will be obliterated, and a temporary displaced centerline provided.
G. All airfield activities must be continually coordinated through Airport Operations Supervisor.

SP-6 AFFIDAVIT OF BILLS PAID

Before Owner's Final Acceptance of this Project, Contractor shall execute an affidavit that all bills for labor, materials, and incidentals incurred in construction of these improvements, are paid in full, including any retainage, and no claims are pending, of which Contractor is notified.

SP-7 CALENDAR DAY

Time for Project completion and liquidated damages shall be in accordance with provisions of General Conditions, Article GC-32 - Time for Completion and Liquidated Damages. A calendar day is every day shown on the calendar.

SP-8 PROTECTION OF PROPERTY

Contractor shall exercise care to prevent damage to all structures, above or below ground, including buildings, fences, pipelines, utilities, roads, etc., publicly or privately owned, and including Work performed by others. Contractor is responsible for locating all underground facilities damaged by proposed construction.

Contractor shall be responsible for all damage done to either public or private property during construction except as specifically provided otherwise in these Specifications.

Known existing underground utilities and structures are shown on Plans. Locations are believed reasonably accurate but not guaranteed.

Contractor shall take all steps necessary to protect existing facilities during construction to assure continuous operation of lights for runways and taxiways which will be open for night operations.

SP-9 ELECTRIC POWER AND NATURAL GAS

Contractor shall provide electrical, natural gas, and other fuel requirements and pay for electricity, gas, or fuel consumed during Project construction. Contractor shall construct own service lines and such construction shall be in strict accordance with all applicable codes and laws.

SP-10 LINES AND GRADES

Parkhill will provide Contractor with horizontal control points and a benchmark for vertical control. Contractor shall do all construction staking. References to lines and grades as established by Parkhill shall reference these control points.

Parkhill will provide Contractor with all necessary information relating to control points set by Parkhill. Contractor will be responsible for laying out Work. Parkhill will check Contractor's grade control and major layouts at Parkhill's discretion, but this check will not relieve Contractor of responsibility of correctly locating line and grade in accordance with Plans and Specifications.

Parkhill will take all measurements necessary to determine amount of Work performed under various items payment is provided. When necessary, Work will be suspended to permit this Work, but such suspension will be as brief as practicable, and Contractor shall be allowed no extra compensation.

Contractor shall be certain as to accuracy of all measurements before constructing any permanent structure and not take advantage of any errors made in laying out Work. Contractor shall scrupulously preserve such stakes/markings as Parkhill may set for either Parkhill or Contractor guidance. In case of Contractor or employee negligence resulting in destruction of such stakes/markings, an amount equal to the cost of replacing same may be deducted from subsequent estimates due Contractor, at Parkhill discretion.

SP-11 WATER FOR CONSTRUCTION

Contractor shall provide for water requirements and pay for all water consumed during Project construction. Contractor shall arrange and pay for connections to existing water mains, fire hydrants, and piping/hauling water to the point where water is required.

SP-12 MATERIAL TESTS

Specifications require various tests on construction materials. In general, Contractor shall bear the cost of all material tests required before approval of material, source, or mix design. City will bear the cost of all passing commercial laboratory tests required for acceptance during construction of improvements and Contractor shall bear the cost of all failing construction tests.

Where only small amounts of material are used or where compliance with Specifications determined by visual inspection, no tests are required. Certificates of compliance required on all materials not tested.

All materials proposed used may be tested any time during preparation and use. If, after trial, sources of supply approved do not furnish a product of uniform quality or product from any source proves unacceptable any time, Contractor shall furnish approved material from another source.

SP-13 BARRICADES, SIGNS, AND HAZARD MARKINGS

Contractor shall provide, erect, and maintain all necessary barricades, signs, danger signals, and lights for protection of Work and the safety of the public for passengers and aircraft. Before closing existing apron, runways, or taxiways, place warning signs for air traffic at such locations, visible day and night. Any movement of Contractor vehicles or equipment on/across aprons or taxiways shall carry FAA standard markings or flags. Movement of other vehicles responsible to Contractor shall be under escort, as specified in Article SP-5-2.

Barricades for runways, taxiways, and aprons closed to traffic shall consist of 10-inch-wide by 8-foot-long plastic, FAA-approved barricades. Each barricade shall have reflective striping and a red flashing light on each end. Barricades shall be spaced with no more than 10-foot clearance between flashing lights attached to successive barricades. Obstructions shall be illuminated at night. Proper illumination of obstructions is critical to safe operation of aircraft on the Airport. All warning lights shall be equipped with photocell controls to automatically turn on lights at night and off at daytime. Contractor shall check lights daily (and each night) to assure batteries/power cells are working. Immediately replace or repair any lights found out-of-order, flashing weakly, or in otherwise less than acceptable operating condition. Parkhill may suspend Work on Project if Contractor's warning lights are not maintained. A $25.00/day charge will be assessed Contractor for each light found inoperative by Owner's personnel or representatives.

SP-14 PREVENTION OF AIR AND WATER POLLUTION

Contractor shall use suitable precaution to minimize air and water pollution during Work progress. Contractor shall meet all EPA requirements concerning air and water pollution. Contractor shall implement a Stormwater Pollution Prevention Plan (SWPPP) as required by Plans and Specifications.

SP-15 PUBLIC CONVENIENCE AND SAFETY

Materials stored on the Airport shall be placed and Work always conducted to cause no greater obstruction to air and ground traffic than Parkhill consider necessary. In protecting operational areas, minimum clearances maintained for runways shall agree with Part 77 of Federal Aviation Regulations. During Project construction, Contractor shall also maintain operational safety on Airport in accordance with the FAA Advisory Circular 150/5370-2G, "Operational Safety on Airports during Construction" and SW5200.5B, "Airport Safety during FAA-funded Airport Construction and FAA Facilities Maintenance." No runway, taxiway, apron, or roadway shall be closed or opened except by express permission from Parkhill and Director of Airports.

Contractor shall be responsible for maintaining pavement free of all rocks, gravel, dirt, and other debris where hauling is permitted on/across any active roadway, apron, runway, taxiway, or areas temporarily closed subject to opening on short notice. Contractor shall immediately remove all rocks, gravel, dirt, or other debris.

SP-16 FINAL CLEANING

As each intermediate phase of Work is completed and before opening any portion of any airfield apron, roadway, runway, or taxiway, Contractor shall be responsible for cleaning construction site and adjacent pavement as specified.

Upon completion of Work and before acceptance and final payment is made, Contractor shall remove from the site all machinery, equipment, surplus and discarded materials, rubbish, and temporary structures. Material cleared from site and deposited on adjacent property will not be considered satisfactorily disposed. Cleanup cost shall be included as a part of cost of various items of Work involved with no direct compensation made for this Work.

SP-17 INSURANCE

Contractor shall not begin Work under this Contract until all insurance is obtained as required in General Conditions of Contract, proof of same is furnished to Owner, and Owner approves. All insurance required for this Project shall name the City of Midland and Parkhill as additional insureds.

Contractor shall obtain and deliver to Owner, an Owner's Protective or Contingent Public Liability Insurance Policy naming the City of Midland and Parkhill as additional insureds and amount of policy shall be as follows:

- $1,000,000 for injuries, including accidental death, to one or more persons and subject to noted limit for each person;
- $1,000,000 total limit for all damages arising out of bodily injuries to or death of two or more persons in any one accident;
- limit not less than $1,000,000 for all damages arising out of injury to or destruction of property in any one accident, and subject to that limit per accident; and
- $2,000,000 total (or aggregate) limit for all damages arising out of injury to or destruction of property during policy period.

Before Work on any Contract or subcontract begins, Contractor(s) and subcontractor(s) shall submit seven certificates to Owner for approval covering each insurance policy carried and offered as evidence of compliance with noted requirements, signed by an authorized representative of insurance company, setting forth:

- name and address of insured;
- location of operations to which insurance applies,
- number of policy and type(s) of insurance in force thereunder on date borne by such certificate;
- policy expiration date and limit(s) of liability thereunder on date borne by such certificate;
- statement insurance of type afforded by policy applies to all operations of whatever character, undertaken by insured during performance of Contract, provided such operations are required in performance of Contract and
- provision the policy may be canceled only by mailing written notice to named insured at address shown in this policy stating when, not less than 10 days thereafter, and cancellation of such policy shall be effective, with copy to Owner of letter of intent.

These certificates will become a part of Contract Documents and must be included with Contract Documents before execution by the City of Midland. Coverages specified herein apply to all Contractor operations in connection with this Work, including automobile and other vehicles.

Contractor's insurance shall cover self, all subcontractors, and sub-subcontractors. All other sublevels of Contractors shall provide copies of proof of insurance if not covered by the general Contractor.

Contractor shall provide a Waiver of Subrogation in favor of the City of Midland and Parkhill on Worker's Compensation and Employee Liability Insurance, Contractor's Public Liability and Property Damage Liability Insurance, and Automobile Insurance.

SP-18 REMOVAL AND DISPOSAL OF STRUCTURES, UTILITIES, AND OBSTRUCTIONS

All materials and debris specified to be disposed by Contractor shall become Contractor's property and Contractor shall properly dispose off Airport property.

SP-19 CONFORMITY WITH PLANS AND ALLOWABLE DEVIATIONS

Finished surfaces shall conform to lines, grades, cross sections, and dimensions. Any deviation from Plans required by exigencies of construction shall be determined and authorized by Parkhill in writing.

SP-20 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

All Work rejected or condemned shall be repaired or, if not satisfactorily repaired, removed and replaced at Contractor expense. Contractor shall immediately remove materials not conforming to Specification requirements from site of Work and replaced with satisfactory material at Contractor expense.

Work done beyond that shown on Plans, or as given, except as herein provided, without proper inspection, or any extra or unclassified Work done without written authority and prior agreement in writing as to prices, will be done at Contractor risk and considered unauthorized and, at Parkhill option, may not be measured, paid for, and may be ordered removed and replaced at Contractor expense.

Upon Contractor failure to repair satisfactorily or remove and replace, if so directed, rejected, unauthorized, or condemned Work or materials immediately after receiving formal notice from Parkhill, Owner may recover for such defective Work or materials on Contractor bond, or by action in court having proper jurisdiction over such matters, or may employ labor, equipment, and satisfactorily repair or remove and replace such Work and charge cost of same to Contractor, which will be deducted from any money due.

SP-21 DISPUTED CLAIMS FOR EXTRA WORK

In case Contractor deems extra compensation is due for Work on materials not clearly covered in Contract nor ordered by Parkhill as an extra, Contractor shall notify Parkhill in writing of intention to make a claim for such extra compensation before beginning Work on which claim is based and shall afford Parkhill every facility for keeping actual cost of Work. Contractor's failure to give such notification or afford Parkhill proper facilities for keeping strict account of actual costs, shall constitute a waiver of claim for such extra compensation. Contractor's filing of such notice and keeping of costs by Parkhill shall not in any way be construed to prove claim validity. When Work is completed, Contractor shall, within 10 days, file a claim for extra compensation with Parkhill, who will present it to Owner for consideration.

SP-22 DELETED

SP-23 INDEMNIFICATION

**CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND OWNER, PARKHILL, AND ALL OFFICERS, AGENTS, AND EMPLOYEES FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, ACCIDENTAL DEATH, LOSSES, PROPERTY DAMAGE, AND EXPENSES OF ANY CHARACTER WHATSOEVER, INCLUDING REASONABLE ATTORNEY FEES, BROUGHT FOR/ON ACCOUNT OF ANY INJURIES/DAMAGES RECEIVED/SUSTAINED BY ANY PERSON(S)/PROPERTY, ON ACCOUNT OF ANY NEGLIGENT ACT OF CONTRACTOR, AGENTS, EMPLOYEES, OR ANY SUBCONTRACTOR, IN EXECUTION, SUPERVISION, AND OPERATIONS GROWING OUT OF OR IN ANY WAY CONNECTED WITH PERFORMANCE OF THIS CONTRACT, AND CONTRACTOR IS REQUIRED TO PAY ANY JUDGMENT WITH COSTS OBTAINED AGAINST OWNER, PARKHILL, OR ANY OFFICERS, AGENTS, OR EMPLOYEES, INCLUDING REASONABLE ATTORNEY FEES.**

**CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND OWNER AND ALL OWNER'S OFFICERS, AGENTS, AND EMPLOYEES AND PARKHILL AND OFFICERS, AGENTS, AND EMPLOYEES OF PARKHILL FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, ACCIDENTAL DEATH, PROPERTY DAMAGE, LOSSES, AND EXPENSES OF ANY CHARACTER WHATSOEVER, INCLUDING ATTORNEY FEES, BROUGHT FOR/ON ACCOUNT OF ANY INJURIES/DAMAGES RECEIVED OR**

**SUSTAINED BY ANY PERSON(S)/PROPERTY, ON ACCOUNT OF ANY NEGLIGENT ACT OF OWNER, OWNER'S OFFICERS, AGENTS, AND EMPLOYEES, OR ON ACCOUNT OF ANY NEGLIGENT ACT OF PARKHILL, OR OFFICERS, AGENTS, AND EMPLOYEES OF PARKHILL WHETHER SUCH NEGLIGENT ACTS WERE SOLE PROXIMATE CAUSE OF INJURY/DAMAGE OR A PROXIMATE CAUSE JOINTLY AND CONCURRENTLY WITH CONTRACTOR OR CONTRACTOR'S EMPLOYEES, AGENTS, OR SUBCONTRACTORS NEGLIGENCE, IN EXECUTION, SUPERVISION, AND OPERATIONS GROWING OUT OF/IN ANY WAY CONNECTED WITH PERFORMANCE OF THIS CONTRACT, AND CONTRACTOR IS REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST OWNER OR ANY OFFICERS, AGENTS, OR EMPLOYEES, INCLUDING REASONABLE ATTORNEY FEES.**

**CONTRACTOR AGREES TO INDEMNIFY AND SAVE OWNER AND PARKHILL HARMLESS FROM ALL CLAIMS GROWING OUT OF ANY DEMANDS OF SUBCONTRACTORS, LABORERS, WORKMEN, MECHANICS, MATERIALMEN, AND FURNISHERS OF MACHINERY AND PARTS THEREOF, EQUIPMENT, POWER TOOLS, ALL SUPPLIES, INCLUDING COMMISSARY INCURRED IN FURTHERING PERFORMANCE OF THIS CONTRACT. WHEN OWNER SO DESIRES, CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE ALL OBLIGATIONS OF NATURE HEREINABOVE DESIGNATED HAVE BEEN PAID, DISCHARGED, OR WAIVED.**

**CONTRACTOR HEREBY WAIVES ALL RIGHTS TO ANY ATTORNEY FEES AWARDED AS RESULT OF ANY ACTION BROUGHT UNDER THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT RELATING TO THIS CONTRACT.**

SP-24 CONTRACTOR RESPONSIBILITY FOR WORK

Until acceptance by Parkhill of any part or all construction, as provided for in these Specifications, it shall be under charge and care of Contractor who shall take every necessary precaution against injury or damage to any part of Work by action of elements or from any other cause whatsoever, whether arising from execution/non-execution of Work. Contractor shall rebuild, repair, restore, and make good, at own expense, all injuries or damage to any portion of Work occasioned by any noted cause before completion and acceptance.

SP-25 CORRECTION OF FAULTY WORK AFTER FINAL PAYMENT

Making final payment by Owner to Contractor shall not relieve Contractor of responsibility for faulty materials or workmanship. Contractor shall promptly replace any such defects discovered within one year from date of written acceptance of Work.

**Performance Bond shall remain in effect until one year after date of written acceptance of Work to insure compliance by Contractor with requirements of this Article.**

SP-26 TEXAS STATE SALES TAX

Work under this Contract is for an entity which qualifies for exemption pursuant to provisions of Article 151.309 of the Texas Tax Code.

Contractor performing this Contract may purchase, rent, or lease all materials, supplies, and equipment incorporated into Project by issuing an exemption certificate to supplier in lieu of tax, said exemption certificate complying with State Comptroller rulings. However, equipment and parts for equipment purchased used on Project but not incorporated into Project do not qualify for said tax exemption.

Contractor shall issue a resale certificate in lieu of paying such sales tax for all materials incorporated into Project. Further, Contractor shall separate charges for materials incorporated into Project from charges for labor. Any such exemption certificate issued by Contractor in lieu of tax shall be subject to provisions of State Comptroller rulings.

SP-27 SEPARATE CONTRACTS

Owner reserves the right to let other contracts about/near Project. Contractor shall afford other contractors a reasonable opportunity for introduction and storage of materials, execution of Work, and coordinate Work with theirs. Contractor coordination with other contractors shall require Parkhill approval. See Article SP-3 for additional requirements concerning separate Contracts.

SP-28 TRENCH SAFETY

Contractor shall strictly comply with all requirements of Occupational Safety and Health Administration (OSHA) Manual, Chapter XVII, Subpart P - Excavation, Trenching and Shoring, for all trenching and excavation operations.

If depths of trenches are encountered over 5 feet, Contractor shall cut trench walls to angle of repose of soils encountered or submit alternate shoring details to Parkhill for approval.

SP-29 LOAD RESTRICTIONS

Contractor shall comply with all legal load restrictions in hauling materials on public roads beyond limits of Work. A special permit will not relieve Contractor of liability for damage which may result from moving material or equipment.

Equipment operations of such weight or so loaded to cause damage to structures or any other type of construction will not be permitted. Hauling materials over base course is not permitted. Hauling materials over base or surface course under construction shall be limited as directed. No loads will be permitted on a concrete pavement, base, or structure before curing period expiration. Contractor shall be responsible for all damage done by hauling equipment and shall correct such damage at own expense.

SP-30 NOTICE TO PROCEED

Notice to proceed shall state the date on which it is expected Contractor will begin construction and from which date Contract time will be charged. Contractor shall begin Work to be performed under Contract within 10 days of date set by Parkhill in written Notice to Proceed, but in any event, Contractor shall notify Parkhill at least 24 hours in advance of time actual construction operations will begin.

SP-31 PAYMENT FOR MATERIALS ON HAND

Partial payments may be made to extent of delivered cost of materials to incorporate in Work, if such materials meet requirements of Contract, Plans, and Specifications and are delivered to acceptable sites on Airport property or other sites in the vicinity acceptable to Owner. Such delivered costs of stored or stockpiled materials may be included in next partial payment after these conditions are met:

A. Material is stored/stockpiled in a manner acceptable to Parkhill at/on an approved site.
B. Contractor furnished Parkhill with acceptable evidence of quantity and quality of such stored/stockpiled materials.
C. Contractor furnished Parkhill with satisfactory evidence material and transportation costs have been paid. Contractor is to provide copies of invoices paid (listing the cost of each item) for materials on hand requested on partial payment request.

D. Contractor furnished Owner legal title (free of liens/encumbrances of any kind) to material so stored/stockpiled.
E. Contractor furnished Owner evidence material stored/stockpiled is insured against loss by damage to or disappearance of such materials any time before use in Work.

Transfer of title and Owner's payment for such stored/stockpiled materials shall in no way relieve Contractor of responsibility for furnishing and placing such materials in accordance with requirements of Contract, Plans, and Specifications.

In no case will amount of partial payments for materials on hand exceed Contract price for such materials or Contract price for Contract item in which material is intended for use.

No partial payment made for stored/stockpiled living or perishable plant materials.

Contractor bears all costs associated with partial payment of stored/stockpiled materials in accordance with provisions of this subsection. See also SP-52 "Partial Payments" and GC-46 "Partial Payments."

SP-32 WEIGHING AND MEASURING EQUIPMENT

Except as modified herein, all scales and scale installations shall meet requirements of the National Institute of Standards and Technology Handbooks 44 and 112 (published by U.S. Department of Commerce and available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.D. 20402-9325), except required accuracy shall be 0.4 percent of load weighed or one graduation on the scale dial. Contractor shall provide personnel, facilities, and equipment for checking scales to Parkhill satisfaction.

Check all scales before beginning operations, after each move, at times when, in Parkhill opinion, there is a question as to accuracy/adequacy, and at least once each six months. Contractor shall furnish a report of calibration from a scale mechanic licensed by the Texas Department of Agriculture using certified weights and approved by Parkhill, certifying scales meet requirements of this item. Plant operations shall cease during checking operation. When inaccuracy/inadequacy is discovered, do not resume scale use until corrective measures are complete and/or scales calibrated. When equipment is adjusted, modify to bring performance errors as close as practicable to zero value.

SP-33 PROGRESS SCHEDULE

Within 15 working days after award of Contract (or at Preconstruction Meeting), Contractor shall submit a Project progress schedule. Progress schedule shall be prepared in a form suitable to Parkhill and show proposed starting and completion dates for each phase of construction as well as each item of Work within each phase. Progress schedule shall include a "Percent Complete Curve" with monthly amount, cumulative amount, and cumulative percent. Progress schedule, if suitable and indicates certain Project completion within the specified time, will be approved in writing by Parkhill. Revisions/changes in approved progress schedule may only be made with Parkhill approval.

SP-34 AVERAGE CLIMATIC RANGE

Time allowed for completion of entire Project shall include number of calendar days for anticipated delays due to normal weather conditions. No time extension for delays due to weather allowed until and unless such delays exceed claims for extension of time because of abnormal inclement weather. Such extension of time shall be granted only because such abnormal inclement weather prevented execution of major items of Work on normal working days. Weather conditions on a particular day may affect Work on days following the normal weather day. This subsequent delay shall not be considered abnormal and no extension of time will be considered.

The following weather table reflects meteorological data from Midland-Odessa area and will be used to determine Contract time extensions due to abnormally inclement weather. For purposes of this Contract, "abnormally inclement weather" is interpreted as number of days more than normal number of days on which rainfall exceeds 0.01 inch, or snow/ice pellets exceed 1.0 inch. Extensions of time to complete Work will be based on calendar days and granted by monthly account. No "rain days" unused for previous months may be carried over or accountable for future periods of time.

| **WEATHER TABLE** | | |
|---|---|---|
| **MONTH** | **MEAN NO. OF RAIN DAYS[1]** | **MEAN NO. OF SNOW/ICE PELLETS DAYS[2]** |
| January | 3 | 0 |
| February | 3 | 0 |
| March | 4 | 0 |
| April | 3 | 0 |
| May | 5 | 0 |
| June | 5 | 0 |
| July | 4 | 0 |
| August | 5 | 0 |
| September | 7 | 0 |
| October | 3 | 0 |
| November | 3 | 0 |
| December | 3 | 0 |
| **TOTAL** | **48** | **0** |

[1] Mean number of days' rainfall, 0.01 inch or more.
[2] Mean number of days' 1.0 inch or more.
[*] Less than 0.5 inch.

Table based on information reported from MAF, Midland, Texas.
Latitude 31 degrees, 56 minutes N Longitude, 102 degrees 12 minutes W, elevation (ground) 2,862 feet.
Means are based on records covering 10 years from 2012-2021.

SP-35 SUBSTANTIALLY COMPLETE

In various specifications "Substantially Complete" is used. Definition shall be:

> "Substantially complete shall occur at time Work to be completed is complete as specified and Owner accepts/occupies facility/improvement. All equipment shall have been completely installed, tested, ready for Owner acceptance and use, and accepted by Owner before Work is defined as substantially complete."

SP-36 SUBMITTALS

Transmit each submittal with Contractor-standard transmittal letter including Contractor name, address, and phone number. Identify Project, Contractor, subcontractor, or supplier, pertinent Drawing sheet and detail number(s), and Specification Section number, as appropriate. Apply Contractor stamp, signed/initialed certifying review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, are in accordance with requirements of Work and Contract Documents. Schedule submittals to expedite Project and deliver to Parkhill via the Procore website (except for product samples mailed to Parkhill's physical address). Coordinate submission of related items. Identify variations from Contract Documents and product/system limitations detrimental to successful performance of completed Work. Parkhill Project Coordinator (PC) shall distribute reviewed submittals to concerned parties via the Procore website instructing parties to promptly report any inability to comply with provisions. Process/format as follows:

- Digitally upload all submittals using PDF file extension. Each submittal shall be a single PDF file including transmittal letter. Multiple files for the same submittal will not be accepted.
- Submittals in any other format, including ZIP files, will be rejected.
- Hard copies will not be accepted.
- To ensure each page is legible, PDF pages of Drawings shall be same size/scale as a hard copy. Where applicable, provide scale symbols to indicate scale. Illegible submittals will be rejected.
- Upload submittals to the Parkhill Procore website.

Submittal procedures described herein apply to Construction Progress Schedule, Products List, Shop Drawings, Product Data, Samples (actual samples to submit, not digital files), Design Data, Test Reports, Certificates, Manufacturer Instructions and Field Reports, and other types of submittals submitted to Parkhill. Submittals shall include but not necessarily limited to:

- Preliminary CPM Contractor's construction schedule.
- Detailed lighting plan for night Work (if applicable).
- Contractor's list of emergency names and phone number.
- Video and/or written report of existing facilities conditions documenting inspection results performed before start of Work.
- List of subcontractors and material suppliers with experience statement.
- Certified payroll reports and statement of compliance from Contractor and all subcontractors (submitted directly to Airport Accountant).
- Three-week lookahead Project schedule (at weekly construction meetings).
- Contractor Quality Control Plan (submitted by preconstruction meeting).
- Contractor affidavit regarding settlement of claims (closeout request).
- Original affidavit acknowledging all subcontractors, material suppliers, payrolls, bill for materials and equipment, and other indebtedness connected with Contract have been paid or otherwise satisfied (closeout request).
- Original with notary signature, full and final release and waiver on liens from Contractor, each subcontractor, and material suppler that documents that are been paid in full (closeout request).
- Warranty (due at Final Completion).
- Maintenance and operating instructions of new equipment.

SP-37 GEOTECHNICAL INFORMATION

No geotechnical reports for this Project are available.

SP-38 SOVEREIGN IMMUNITY

By executing this Contract, Owner is not waiving its right to sovereign immunity. Owner is retaining immunity from suit. Owner is not granting consent to be sued by legislative resolution or action.

THERE IS NO WAIVER OF SOVEREIGN IMMUNITY.

SP-39 GOVERNING LAW AND VENUE

This Contract shall be governed by laws of the State of Texas. All performance and payment made pursuant to this Contract shall be deemed to have occurred in Midland County, Texas. Exclusive venue for any claims, suits, or other action arising from or connected in any way to this Contract or performance of this Contract shall be in Midland County, Texas. Obligations and undertakings of each party to this Contract shall be deemed to have occurred in Midland County, Texas. This Contract shall be governed by, interpreted, enforced, and construed under the law of the State of Texas. Laws of the State of Texas shall govern, construe, and enforce all rights and duties of parties, including but not limited to tort claims and all Contractual claims or disputes, arising from or relating in any way that would direct application of laws of another jurisdiction.

SP-40 THIRD-PARTY BENEFICIARY

This Contract does not create a third-party beneficiary nor is there a third-party beneficiary to this Contract. No person/entity not a party to this Contract shall have any third-party beneficiary or other rights hereunder.

SP-41 RELEASES

**NOTWITHSTANDING ANY OTHER PROVISIONS, Contractor hereby releases, acquits, RELINQUISHES, and forever discharges OWNER, Owner's employees and officers, and PARKHILL, and its employees and officers, from any and all demands, claims, DAMAGES, or causes of action of any kind whatsoever which Contractor has/might have including but not limited to BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER DUE PROCESS AND TAKINGS CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS, OR OWNER NEGLIGENCE.**

SP-42 INDEPENDENT CONTRACTOR

It is expressly understood and agreed that Contractor shall perform all Work and services described herein as an independent contractor and not as an officer, agent, servant, or employee of Owner; that Contractor shall have exclusive control of and exclusive right to control details of services and work performed hereunder, and all persons performing the same; and shall be solely responsible for acts and omissions of its officers, agents, employees, contractors and subcontractors; that the doctrine of respondent superior shall not apply as between owner and Contractor, its officers, agents, employees, contractors and subcontractors; and that nothing herein shall be construed as creating a partnership or joint enterprise between Owner and Contractor. No person performing any work and services described hereunder by Contractor shall be considered an officer, agent, servant, or employee of Owner. Further, it is specifically understood and agreed that nothing in this contract is intended or shall be construed as creating a "Community of Pecuniary Interest" or "An Equal Right of Control" which would give rise to vicarious liability. Contractor shall be an independent contractor under this Contract and shall assume all rights, obligations, and liabilities applicable to it as such independent contractor. Owner does not have the power to direct the order work is done. Owner shall not have the right to control means, methods, or details of

Contractor's work. Contractor shall assume exclusive responsibility for work. Contractor is entirely free to do work in its own way.

SP-43 NOTICE OF ALLEGED BREACH; STATUTORY PREREQUISITES

As a condition precedent to filing suit for alleged damages incurred by an alleged breach of an express or implied provision of this Contract, Contractor or legal representative shall give City Manager, or other reasonable official of Owner, notice in writing (consisting of one original and seven copies of notice attached to Contract) of such damages, duly verified, within 150 days after same has been sustained. Discovery rule does not apply to giving this notice. Notice shall include when, where, and how damages occurred, apparent extent thereof, amount of damages sustained, amount for which Contractor will settle, physical and mailing addresses of Contractor at time and date claim was presented as well as physical and mailing addresses of Contractor for six months immediately preceding occurrence of such damages, and names and addresses of witnesses upon whom Contractor relies to establish claim. Failure to notify City Manager within time and manner provided herein shall exonerate, excuse, and except Owner from any liability whatsoever. Owner is under no obligation to provide notice to Contractor that Contractor's notice is insufficient. Owner reserves the right to request reasonable, additional information regarding claim. Said additional information shall be supplied within 30 days after receipt of notice.

Statutory prerequisites outlined herein constitute jurisdictional requirements pursuant to Section 271.154 of the Texas Local Government Code and Section 311.034 of the Texas Government Code. Notwithstanding another provision, Contractor failure to comply with requirements herein shall perpetually bar Contractor's claim for damages under Chapter 271 of the Texas Local Government Code, and Section 311.034 of the Texas Government Code, regardless if Owner has actual/constructive notice/knowledge of said claim or alleged damages. Contractor agrees requirements of this entire Contract are reasonable.

SP-44 ASSIGNMENT

Contractor shall not directly/indirectly assign all/any part of this Contract or any interest, right, or privilege herein, without prior written consent of Owner. Owner has the sole discretion on whether to grant consent to an assignment.

SP-45 WAIVER OF ATTORNEY FEES

BY EXECUTING THIS CONTRACT, CONTRACTOR AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY, AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST OWNER, REGARDING AWARD OF ATTORNEY FEES, WHICH ARE IN ANY WAY RELATED TO CONTRACT OR CONSTRUCTION, INTERPRETATION, OR BREACH OF CONTRACT. CONTRACTOR SPECIFICALLY AGREES IF CONTRACTOR BRINGS/COMMENCES ANY LEGAL ACTION/PROCEEDING RELATED TO THIS CONTRACT, CONSTRUCTION, INTERPRETATION, VALIDITY, OR BREACH OF CONTRACT INCLUDING BUT NOT LIMITED TO ANY ACTION PURSUANT TO PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET. SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, CONTRACTOR AGREES TO ABANDON, WAIVE, AND RELINQUISH ALL RIGHTS TO RECOVERY OF ATTORNEY FEES TO WHICH CONTRACTOR MIGHT OTHERWISE BE ENTITLED.

CONTRACTOR AGREES THIS IS A VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY EXISTING KNOWN RIGHT. CONTRACTOR ACKNOWLEDGES AN UNDERSTANDING OF ALL TERMS AND CONDITIONS OF CONTRACT. CONTRACTOR FURTHER ACKNOWLEDGES AND AGREES THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN OWNER AND CONTRACTOR. THIS SECTION SHALL NOT BE CONSTRUED/INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.

CONTRACTOR AND OWNER ARE RELYING ON THEIR OWN JUDGMENT. EACH PARTY HAD THE OPPORTUNITY TO DISCUSS THIS CONTRACT WITH COMPETENT LEGAL COUNSEL PRIOR TO EXECUTION.

SP-46 PROMPT PAY ACT

Owner and Contractor agree Texas Government Code, Chapter 2251, Payment for Goods and Services (the "Prompt Pay Act") does not waive governmental immunity.

SP-47 PAYMENT

After Contractor completes all Work including all Change Orders altering original scope, amount of said Contract are completed, and Owner inspected and approved that Work is completed and in compliance with Contract and all subsequent Change Orders, Owner may thereafter issue payment to Contractor in amount of Contract and all Change Orders. Owner shall be the final judge of when Contractor completes Work. Owner, at sole discretion, shall determine if Work under Contract and under any Change Orders was done to Owner requirements. Owner may make periodic payments to Contractor; however, such periodic payments may only be made pursuant to this Article and only after all Work and Change Orders are completed by Contractor and approved by Owner.

SP-48 PROJECT CLOSEOUT

Approval of Final Payment to Contractor is contingent upon completion and submittal of items listed below. Final Payment not approved until Parkhill approves Contractor's final submittal. Contractor shall:

- provide two copies of all manufacturer warranties specified for materials, equipment, and installations.
- provide weekly payroll records (not previously received) from General Contractor and all subcontractors.
- complete final cleanup. Upon completion of Work and before acceptance and final payment is made, Contractor shall remove from site all machinery, equipment, surplus and discarded materials, rubbish, temporary structures, and stumps or portions of trees. Contractor shall cut all brush and woods within limits indicated and leave site neat and presentable. Material cleared from site and deposited on adjacent property will not be considered as having been disposed satisfactorily unless Contractor obtained written permission of such property owner.
- complete all punch list items identified during Final Inspection.
- provide complete release of all claims for labor and material arising out of Contract.
- return copies of sales tax completion forms when applicable per state requirements.
- provide manufacturer certifications for all items incorporated in Work.
- make all required Record, As-Built, or As-Constructed Drawings available.
- deliver Project Operation and Maintenance (O&M) Manual(s).
- provide Security for Construction Warranty.
- submit equipment commissioning documentation, if required.

SP-49 DISCLOSURE OF INTERESTED PARTIES

Successful proposer will be required to complete Texas Ethics Commission Form 1295-Certificate of Interested Parties and submit completed form with executed Contracts for Project. Complete Form 1295 online at the Texas Ethics website:
https://www.ethics.state.tx.us/filinginfo/1295/

Parkhill will email links to Contractor with an explanation once Contract is awarded. Contractor is responsible for completing form, printing, and submitting along with all other required Contract documents.

SP-50 PARKHILL/RPR AUTHORITY AND DUTY

Parkhill nor RPR shall supervise, direct, or have control over Contractor's Work nor have any responsibility for construction means, methods, techniques, sequences, or procedures selected by Contractor nor for Contractor's safety precautions or programs in connection with Work. These rights and responsibilities are solely those of Contractor in accordance with Contract Documents.

Parkhill nor RPR shall be responsible for any acts/omissions of Contractor, subcontractor, entity performing any portions of Work, or agents or employees of any of them. Parkhill nor RPR guarantee Contractor performance nor are responsible for Contractor's failure to perform Work in accordance with Contract Documents or any applicable laws, codes, rules, or regulations.

SP-51 ANTI-BOYCOTT STATUTES

To the extent that Sections 2271.002 and 2274.002 of the Texas Government Code (collectively, the "Anti-Boycott Statutes") apply to this Contract, Contractor hereby verifies:

- that Contractor does not boycott Israel and will not boycott Israel during the term of this Contract;
- that Contractor does not boycott energy companies and will not boycott energy companies during the term of this Contract; and
- that Contractor does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of this Contract against a firearm entity or firearm trade association.

To the extent that the Anti-Boycott Statutes do not apply to this Contract, such verification is not required, and Contractor shall be deemed to have not made such verification.

SP-52 PARTIAL PAYMENTS

Partial Payments will be made to Contractor at least once each month as work progresses. Said payments will be based upon estimates, prepared by Contractor for Architect/Engineer review, of the value of work performed and materials complete and in place, in accordance with Contract, Plans, and Specifications. Such partial payments may also include delivered actual cost of those materials stockpiled and stored in accordance with Construction Contract requirements. No partial payment will be made when amount due to Contractor since last estimate is less than $500.

1) From the total amount determined payable on a partial payment, Owner shall deduct and retain 5% of such total amount to protect Owner interests. Unless Owner instructs otherwise, amount Owner retains will be in effect until final payment is made except:
    a. Contractor may request release of retainage on work partially accepted by Owner in accordance with Construction Contract requirements. Contractor must provide a certified invoice to Owner to support retainage value held by Owner for partially accepted work.

2) Contractor is required to pay all subcontractors for satisfactory performance of their contracts no later than 30 days after Contractor received partial payment. Contractor must provide Owner evidence of prompt and full retainage payment held by prime Contractor to subcontractor within 30 days after subcontractor work is satisfactorily completed. Subcontractor work is satisfactorily completed when all tasks called for in subcontract are accomplished and documented as Owner requires. When Owner incrementally accepts a portion of a prime contract, subcontractor work covered by that acceptance is deemed satisfactorily completed.

3) When at least 95% of work is completed to Owner satisfaction, Contractor shall, at Owner discretion and with consent of surety, prepare estimates of both contract value and cost of remaining work to be done. Owner may retain an amount not less than twice the contract value or estimated cost, whichever is greater, of work remaining to be done. Remainder, less all previous payments and deductions, will then be certified for payment to Contractor.

It is understood and agreed that Contractor shall not be entitled to demand or receive partial payment based on quantities of work in excess of those provided in proposal or covered by approved change orders or supplemental agreements, except when Architect/Engineer determines such excess quantities are to be part of the final quantity for item of work in question.

No partial payment shall bind Owner to acceptance of any materials or work in place as to quality or quantity. All partial payments are subject to correction at time of final payment in accordance with Construction Contract requirements.

Contractor shall deliver Owner a complete release of all claims for labor and material arising out of this Contract before Final Payment is made. If any subcontractor or supplier fails to furnish such a release in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any potential lien or other such claim. Bond or collateral shall include all costs, expenses, and attorney fees Owner may be compelled to pay in discharging any such lien or claim.

END OF DOCUMENT

## GENERAL CONDITIONS OF CONTRACT

GC-01. OWNER

When "Owner," "Party of the First Part," or "First Party" are used in Contract Documents, it shall refer to Owner as described in Contract.

GC-02. CONTRACTOR

When "Contractor," "Party of the Second Part," or "Second Party," are used, it shall mean person(s), co-partnership, or corporation so defined in Contract who agreed to perform Work embraced in this Contract, or to legal representatives.

GC-03. ARCHITECT/ENGINEER

When "Architect/Engineer" is used in this Contract, it shall refer to Parkhill, Architect/Engineer of Owner, or such other Architect/Engineer, supervisor, or inspector, as authorized by said Owner, to act as Owner's representative with respect to services performed or furnished by Architect/Engineer.

GC-04. CONTRACT DOCUMENTS

Contract Documents shall consist of Notice to Bidders (Advertisement), Instructions to Bidders, Proposal, signed Contract, Performance Bond, Payment Bond, General Conditions of the Contract, Special Provisions, Technical Specifications, Plans, and all modifications thereof incorporated in any documents before execution of Contract.

Contract Documents are complementary and called for by any one person/entity shall be as binding as if called for by all. In case of conflict between Contract Documents, priority of interpretation shall be in the following order:

1. Signed Contract,
2. Performance Bond,
3. Special Bonds (if any),
4. Proposal,
5. Special Provisions,
6. Notice to Bidders,
7. Instructions to Bidders,
8. Technical Specifications,
9. Plans, and
10. General Conditions of the Contract.

GC-05. SUBCONTRACTOR

"Subcontractor," as employed herein, includes only those with a direct contract with Contractor and includes one who furnished material worked to a special design according to Plans or Specifications of this Work but does not include one who merely furnished material not so worked.

GC-06. WRITTEN NOTICE

Written notice shall be deemed to be duly served if delivered in person to individual, member of firm, or officer of corporation intended, or if delivered/sent by registered mail to last business address known.

GC-07. WORK

Unless otherwise stipulated, Contractor shall provide and pay for all materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, water, light, power, fuel, transportation, and other facilities necessary for execution and completion of Work covered by Contract Documents. Unless otherwise specified, all materials shall be new and both workmanship and materials of good quality. Contractor shall, if required, furnish satisfactory evidence as to kind and quality of materials. Materials or Work described in words shall have a well-known technical or trade meaning and held to refer to such recognized standards.

GC-08. DELETED

GC-09. DELETED

GC-10. LAYOUT OF WORK

Except as specifically provided herein, Contractor shall be responsible for laying out all Work and accomplish Work as acceptable to Architect/Engineer. Architect/Engineer will check Contractor's layout of all major structures and other layout work done by Contractor at Contractor request, but this check does not relieve Contractor of responsibility of correctly locating all Work in accordance with Plans and Specifications.

GC-11. ARCHITECT/ENGINEER AUTHORITY AND DUTY

Unless otherwise specified, it is mutually agreed between parties to this Contract that Architect/Engineer will observe quality and progress of Work at various times. To prevent delays, disputes, and discourage litigation, it is further agreed Architect/Engineer shall, in all cases, determine amounts and quantities of several kinds of Work paid under this Contract. He shall determine all questions in relation to said Work and construction thereof, and in all cases, decide every question which may arise relative to execution of this Contract on part of said Contractor. Architect/Engineer estimates and findings shall be conditions precedent to right of parties hereto to any action of Contract, and any rights of Contractor to receive any money under this Contract; provided, however, should Architect/Engineer render any decision or give any direction, which in the opinion of either party hereto, is not in accordance with meaning and intent of this Contract, either party may file with said Architect/Engineer within 30 days, written objection to decision/direction so rendered. Contract intent is for there to be no delay in execution of Work; therefore, written decisions/directions of Architect/Engineer as rendered shall be promptly carried out and any claim arising therefrom shall be thereafter adjusted as hereinafter provided.

Architect/Engineer shall, within a reasonable time, render and deliver to both Owner and Contractor, a written decision on all claims of parties hereto and all questions which may arise relative to execution of Work or interpretation of Contract, Specifications, and Plans. Should Architect/Engineer fail to make such decision within a reasonable time, an appeal may be taken as if decision was rendered against party appealing.

When "directed," "required," "permitted," "designated," "considered necessary," "prescribed," "approval," "acceptable," "satisfactory," or words of like import are used, it is understood direction, requirement, permission, order, designation, prescription, approved by, acceptable, or satisfactory of Architect/Engineer is intended.

In Specifications or Drawings accompanying this Contract, terms of description of various qualities relative to finish, workmanship, or other qualities of similar kind which cannot, from their nature, be specifically and clearly described and specified, but necessarily described in general terms, fulfillment of which must depend on individual judgment, in all such cases, any question of fulfillment of said Specifications shall be decided by Architect/Engineer, and said work done in accordance with interpretations of meaning of words, terms, or clauses defining character of Work.

GC-12. SUPERINTENDENCE AND PROJECT REPRESENTATION

It is agreed by Contractor that Architect/Engineer may appoint such subordinate engineers, supervisors, or project representatives as Architect/Engineer may deem proper to inspect material furnished and Work done under this Contract, see said material is furnished and done in accordance with Specifications therefor. Contractor shall furnish all reasonable aid and assistance required by subordinate engineers, supervisors, or project representatives for proper inspection and examination of Work. Contractor shall regard and obey directions and instructions of any subordinate engineers, supervisors, or project representatives so appointed when such directions and instructions are consistent with obligations of this Contract and accompanying Plans and Specifications, provided; however, should Contractor object to any orders by any subordinate Engineer, supervisor, or Project representative, Contractor may, within six days, make written appeal to Architect/Engineer for his decision.

GC-13. CONTRACTOR DUTY AND SUPERINTENDENCE

Contractor shall give personal attention to faithful prosecution and completion of this Contract and keep on Work, during progress, competent superintendent, and any necessary assistants all satisfactory to Architect/Engineer. Superintendent shall represent Contractor when absent and all directions given shall be as binding as if given to Contractor. Adequate supervision by competent and responsible Contractor representatives is essential to proper performance of Work and lack of such supervision shall be grounds for suspending Contractor operations. Confirm important directions in writing to Contractor. Confirm other directions on written request in each case.

GC-14. CONTRACTOR UNDERSTANDING

It is understood and agreed that Contractor is, by careful examination, satisfied as to nature and location of Work, confirmation of ground, character, quality, and quantity of materials to be encountered, character of equipment and facilities needed preliminary to and during prosecution of Work, general and local conditions, and all other matters which can in any way affect Work under this Contract. No verbal agreement or conversation with any officer, agent, or employee of Owner, either before or after execution of this Contract, shall affect or modify any terms or obligations herein contained.

GC-15. CHARACTER OF WORKERS

Contractor agrees to employ orderly and competent employees, skillful in performance of Work required under this Contract, to do Work; and agrees whenever informed by Architect/Engineer in writing, any employee(s) on Work are, in Architect/Engineer opinion, incompetent, unfaithful, or disorderly, such employee(s) shall be discharged from Work and not again employed on Work without Architect/Engineer's written consent.

GC-16. CONTRACTOR BUILDINGS

Building structures for housing employees, erecting tents, or other forms of protection will be permitted only at such places as Architect/Engineer shall direct, and sanitary conditions of grounds in or about such structures shall always be maintained as satisfactory to Architect/Engineer.

GC-17. SANITATION

Contractor shall construct and maintain necessary sanitary conveniences for use of laborers on Work, properly secluded from public observation, approved by Architect/Engineer, and use strictly enforced.

GC-18. SHOP DRAWINGS

Contractor shall submit to Architect/Engineer with such promptness as to cause no delay in Work of any Contractor, Shop/Setting Drawings and schedules required for Work of various trades, and Architect/Engineer shall pass upon them with reasonable promptness, making required corrections. Architect/Engineer approval of such Drawings or schedules, shall not relieve Contractor from responsibility for deviations from Drawings or Specifications, unless Architect/Engineer called attention to, in writing, such deviations at time of submission nor relieve Contractor from responsibility for errors of any sort in Shop Drawings or schedules.

GC-19. PRELIMINARY APPROVAL

Architect/Engineer shall not have power to waive obligations of this Contract for furnishing by Contractor of good material, and performing good work as herein described, and full accordance with Plans and Specifications. No failure or omission of Architect/Engineer to condemn any defective work or material shall relieve Contractor from obligations to tear out, remove, and properly replace same at any time prior to Final Acceptance upon discovery of said defective work or material, provided; however, Architect/Engineer shall, upon request of Contractor, inspect, accept, and/or reject any material furnished, and in event material was once accepted by Architect/Engineer, such acceptance shall be binding on Owner, unless clearly shown such material furnished does not meet Specifications for this Work. Any questioned Work may be ordered taken up or removed for Architect/Engineer to re-examine, prior to Final Acceptance, and, if found not in accordance with Specifications for said Work, all expense of removing, re-examination, and replacement shall be borne by Contractor, otherwise expense thus incurred shall be allowed as Extra Work and paid for by Owner, provided, where inspection or approval is specifically required by Specifications prior to performance of certain Work, should Contractor proceed with such Work without requesting prior inspection or approval, Contractor shall bear all expense of taking up, removing, and replacing work if so directed by Architect/Engineer.

GC-20. DEFECTS AND REMEDIES

It is further agreed if Work or any part thereof, or any material brought on site of Work for use in Work or selected for same, shall be deemed by Architect/Engineer as unsuitable or not in conformity with Specifications, Contractor shall, after receipt of written notice thereof from Architect/Engineer, forthwith remove such material and rebuild or otherwise remedy such work for full accordance with this Contract.

GC-21. CHANGES AND ALTERATIONS

Contractor further agrees Owner may make such changes and alterations as Owner sees fit, in line, grade, form, dimensions, Plans, or materials for Work herein contemplated, or any part thereof, before or after beginning construction without affecting validity of this Contract and accompanying Performance Bond.

If such changes or alterations diminish quantity of Work to do, they shall not constitute basis for a claim for damages, or anticipated profits on Work that may be dispensed with, except as provided for unit price items under “Estimated Quantities.” If amount of Work is increased or decreased, and Work can fairly be classified under Specifications, price adjustment for such increase or decrease shall be made according to quantity actually done and at unit price, if any, established for such work under this Contract, except as provided for unit price items under “Estimated Quantities;” otherwise, price adjustment for such changed work shall be made as provided under Extra Work. In case Owner shall make such changes or alterations as useless any material already done or material already furnished or used, Owner shall recompense Contractor for any material or labor so used, and any actual loss occasioned by such change, due to actual expense incurred in preparation as originally planned.

GC-22. RIGHT OF ARCHITECT/ENGINEER TO MODIFY METHODS AND EQUIPMENT

If at any time, methods or equipment used by Contractor are found inadequate to secure quality of Work or rate of progress required under this Contract, Architect/Engineer may order Contractor, in writing, to increase safety or improve character and efficiency, and Contractor shall comply with such order.

If at any time, Working force of Contractor is inadequate for securing progress herein specified, Contractor shall, if so ordered in writing, increase his force or equipment, or both, to such an extent as to give reasonable assurance of compliance with schedule of progress.

GC-23. KEEPING PLANS AND SPECIFICATIONS ACCESSIBLE

Architect/Engineer shall furnish Contractor with an adequate and reasonable number of copies of all Specifications without additional expense, and Contractor shall keep one copy of same constantly accessible on Work, with latest revisions noted thereon.

GC-24. OWNERSHIP OF DRAWINGS

All Drawings, Specifications, and copies thereof furnished by Architect/Engineer shall not be reused on other work, and with exception of signed contract sets, are returned to him on request, at completion of Work. All models are property of Owner.

GC-25. ADEQUACY OF DESIGN

It is understood Owner employed competent engineers and designers. It is, therefore, agreed Owner shall be responsible for adequacy of design, sufficiency of Contract Documents, safety of structure, and practicability of operations of completed Project, provided Contractor complied with requirements of said Contract Documents, all approved modifications thereof, additions, and alterations thereto approved in writing by Owner. Burden of proof of such compliance shall be upon Contractor to show compliance with said requirements of Contract Documents, approved modifications thereof, and all approved additions and alterations thereto.

GC-26. RIGHT OF ENTRY

Owner reserves the right to enter property or location on which Work herein contracted for are to be constructed or installed, by such agent(s) as elected, to supervise and inspect Work, or construct or install such collateral work as said Owner may desire.

GC-27. COLLATERAL CONTRACTS

Owner agrees to provide by separate contract or otherwise, all labor and material essential to completion of Work specifically excluded from this Contract, not delaying progress of Work, or damage said Contractor, except where such delays are specifically mentioned elsewhere in Contract Documents.

GC-28. DISCREPANCIES AND OMISSIONS

It is further agreed the intent of this Contract is all work must be done and material furnished in accordance with generally accepted practice, and in the event of any discrepancies between separate Contract Documents, priority of interpretation defined under “Contract Documents” shall govern. In the event of a remaining doubt as to meaning and intent of any portion of Contract, Specifications, or Drawings, Architect/Engineer shall define which is intended to apply to Work.

GC-29. DELETED

GC-30. PROTECTION AGAINST ACCIDENT TO EMPLOYEES AND THE PUBLIC

Contractor shall take out and procure a policy of worker compensation with an insurance company licensed to transact business in the State of Texas, which policy shall comply with Workman's Compensation Law of the State of Texas. Contractor shall always exercise reasonable precautions for the safety of employees and others on/near Work and comply with all applicable provisions of Federal, State, and Municipal safety laws and building and construction codes. All machinery, equipment, and other physical hazards shall be guarded in accordance with the "Manual of Accident Prevention in Construction" of the Associated General Contractors of America except where incompatible with Federal, State, or Municipal laws or regulations. Contractor, sureties, and insurance carriers shall defend, indemnify, and save harmless Owner and all officers, agents, employees, Architect/Engineer, agents, and employees from all suits, actions, or claims of any character, name, and description brought for or on account of any injuries or damages received or sustained by any persons/property, on account of any negligent act or fault of Contractor or any subcontractor, agents, or employees, in execution and supervision of said Contract and Project of this Contract or on account of Contractor or any subcontractor failure to provide necessary barricades, warning lights, or signs, and will be required to pay any judgment with costs obtained against Owner or any officers, agents, or employees, and/or Architect/Engineer, agents, and/or employees.

Safety precautions taken shall be sole responsibility and discretion of Contractor, as an independent contractor; inclusion of this paragraph in Contract, as well as any notice given by Owner, Architect/Engineer, or representatives concerning omissions under this article as Work progresses, are intended only as reminders to Contractor of duty and not construed as any assumption of duty to supervise safety precautions by Owner or Architect/Engineer.

GC-31. CONTRACTOR INSURANCE

Contractor shall procure and carry, at sole cost and expense, throughout life of Contract, insurance protection as hereinafter specified. All Insurance shall name Owner and Architect/Engineer as additional insureds except Worker's Compensation and Employer Liability Insurance. Such insurance shall be carried with an insurance company licensed to transact business in the State of Texas and cover all operations in connection with this Contract. Contractor insurance shall cover self and, at minimum, all subcontractors and sub-subcontractors. All other sublevels of contractors shall provide copies of proof of insurance if not covered by General Contractor.

Contractor shall provide a Waiver of Subrogation in favor of City of Midland and Parkhill on Worker's Compensation, Employer Liability Insurance, Contractor's Public Liability, Property Damage Liability Insurance, and Automobile Insurance.

a. Worker's Compensation and Employer Liability Insurance: As required by statute, covering all employees employed on Work whether employed by Contractor or subcontractor.
b. Contractor's Public Liability and Property Damage Liability Insurance: Providing for a limit not less than $1,000,000.00 for all damages arising out of bodily injuries to or death of one person, and subject to that limit for each person, a total limit of $1,000,000.00 for all damages arising out of bodily injuries to or death of two or more persons in any one accident, and regular Contractor's Property Damage Liability Insurance providing for a limit of not less than $1,000,000.00 for all damages arising out of injury to or destruction of property in any one accident, and subject to that limit per accident, a total (or aggregate) limit of $2,000,000.00 for all damages arising out of injury to or destruction of property during policy period.
c. Automobile Insurance: Providing a limit not less than $1,000,000.00 for injuries, including accidental death, to any one person and, subject to same limit for each person a total limit of $2,000,000.00 on account of one accident, and automobile property damage insurance in an amount not less than $500,000.00.

d. Proof of Insurance Carriage: Before work on any contract or subcontract, each Contractor and subcontractor shall submit to Owner for approval, six certificates covering each insurance policy carried and offered as evidence of compliance with requirements, signed by an authorized representative of the insurance company, setting forth:

1. Name and address of insured;
2. Location of operations to which insurance applies;
3. Number of policy and type(s) of insurance in force thereunder on date borne by such certificate;
4. Expiration date of policy and limit(s) of liability thereunder on date borne by such certificate;
5. Statement that insurance of type afforded by policy, applied to all operations of whatever character, undertaken by insured during performance of this Contract, provided such operations are required in performance of Contract; and
6. Provision that policy may be cancelled only by mailing written notice to named insured at address shown in this policy stating when, not less than 10 days thereafter, cancellation of such policy shall be effective, with copy to Owner of letter of intent.

GC-32. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

It is hereby understood and mutually agreed by and between Contractor and Owner, date of beginning and time for completion as specified in Contract of Work to be done hereunder, are ESSENTIAL CONDITIONS of this Contract; and further mutually understood and agreed Work embraced in this Contract shall be commenced on a date to be specified in "Notice to Proceed."

Contractor agrees said Work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will ensure full completion thereof within time specified. It is expressly understood and agreed, by and between Contractor and Owner, time for completion of Work described herein is a reasonable time for completion of same, taking into consideration average climatic range and usual industrial conditions prevailing in this locality.

If said Contractor shall neglect, fail, or refuse to complete Work within time herein specified, or any proper extension thereof granted by Owner, Contractor does hereby agree, as a part consideration for awarding this Contract, to pay to Owner amount specified in Contract, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each calendar day Contractor shall be in default after time stipulated in Contract for completing Work.

Said amount is fixed and agreed upon by and between Contractor and Owner because of impracticability and extreme difficulty of fixing and ascertaining actual damages Owner would in such event sustain, and said amount is agreed to be amount of damages Owner would sustain and said amount retained as necessary by Owner from current periodical estimates.

It is further agreed time is of the essence of every portion of this Contract and Specifications wherein a definite and certain length of time is fixed for performance of any act whatsoever; and where under Contract an additional time is allowed for completion of any work, new time limit fixed by such extension shall be of the essence of this Contract. Provided, Contractor shall not be charged with liquidated damages or any excess cost when Owner determines Contractor is without fault and Contractor's reasons for time extension are acceptable to Owner; Provided, further, Contractor shall not be charged with liquidated damages of any excess cost when delay in completion of Work is due:

a. To any preference, priority, or allocation order duly issued by the Government;
b. To unforeseeable cause beyond Contractor control and without fault or negligence including but not restricted to acts of God or public enemy, acts of Owner, acts of another Contractor in performance of contract with Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and severe weather; and
c. To any delays of subcontractors/suppliers occasioned by any cause specified in (a) and (b) of this article:

Provided further, Contractor shall, within 10 days from beginning of such delay, unless Owner shall grant a further time prior to date of final settlement of Contract, notify Owner in writing of causes of delay, who shall ascertain facts and extent of delay and notify Contractor within a reasonable time of decision in the matter.

CONTRACTOR AGREES THAT THE PAYMENT OF SUCH LIQUIDATED DAMAGES MAY BE RECOVERED BY THE CITY FROM RETAINAGE HELD BY THE CITY. NOTWITHSTANDING ANY OTHER PROVISION HEREOF, CONTRACTOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY, CITY'S EMPLOYEES AND OFFICERS FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES, OR CAUSES OF ACTION OF ANY KIND WHATSOEVER ARISING FROM THE CITY WITHHOLDING PAYMENT FROM CONTRACTOR AS LIQUIDATED DAMAGES FOR CONTRACTOR'S FAILURE TO COMPLETE THE WORK WITHIN THE TIME SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS, OR CITY'S NEGLIGENCE.

CONTRACTOR SHALL RECEIVE NO FINANCIAL COMPENSATION FOR DELAY OR HINDRANCE OF THE WORK. IN NO EVENT SHALL THE CITY BE LIABLE TO CONTRACTOR OR ANY SUBCONTRACTOR OR SUPPLIER, ANY OTHER PERSON OR ANY SURETY FOR ANY EMPLOYEE OR AGENT OF ANY OF THEM, FOR ANY DAMAGES ARISING OUT OF OR ASSOCIATED WITH ANY DELAY OR HINDRANCE TO THE WORK, REGARDLESS OF THE SOURCE OF THE DELAY OR HINDRANCE, INCLUDING EVENTS OF FORCE MAJEURE, AND EVEN IF SUCH DELAY OR HINDRANCE RESULTS FROM, ARISES OUT OF OR IS DUE, IN WHOLE IR IN PART, TO THE NEGLIGENCE OF THE CITY. CONTRACTOR'S SOLE REMEDY IN ANY SUCH CASE SHALL BE AN EXTENSION OF TIME.

GC-33. PRICE FOR WORK

In consideration of furnishing all necessary labor, equipment, and material and completion of all Work by Contractor, and on delivery of all material embraced in this Contract in full conformity with Specifications and stipulations herein contained, Owner agrees to pay Contractor prices set forth in Proposal hereto attached, made a part of this Contract, and Contractor hereby agrees to receive such prices in full for furnishing all material and labor required for aforesaid Work, also for all expenses incurred, and well and truly performing same and whole thereof in the manner and according to this Contract, Specifications, Drawings, and requirements of Architect/Engineer.

GC-34. BONDS

It is further agreed by parties to this Contract that Contractor will execute bonds in sum of 100 percent of total contract price for satisfactory performance of Work and payment of all labor, materials, and equipment in accordance with this Contract on forms provided for this purpose, executed by an approved surety company authorized to do business in the State of Texas, and agreed this Contract shall not be in effect until such bonds are furnished and approved by Owner. Performance and Payment Bonds shall comply with Chapter 2253 of the Texas Government Code.

GC-35. LOSSES FROM NATURAL CAUSES

Unless otherwise specified, all loss or damage to Contractor arising out of the nature of Work to be done, action of elements, any unforeseen circumstances in prosecution of same, or unusual obstructions/difficulties encountered in prosecution of Work, shall be sustained and borne by Contractor at own expense.

GC-36. PROTECTION OF ADJOINING PROPERTY

Said Contractor shall take proper means to protect adjacent/adjoining property/properties, in any way encountered, which might be injured/seriously affected by any process of construction undertaken under this Contract, from any damage/injury by reason of said process of construction; and shall be liable for any/all claims for such damage on account of failure to fully protect all adjoining property. Contractor agrees to indemnify, save, and hold harmless Owner against any claim(s) for damages due to any injury to any adjacent or adjoining property, arising/growing out of performance of Contract, but any such indemnity shall not apply to any claim of any kind arising out of existence or character of Work.

GC-37. PROTECTION AGAINST SUBCONTRACTOR, LABORER, MATERIALMEN AND FURNISHER OF MACHINERY, EQUIPMENT, AND SUPPLY CLAIMS

Contractor agrees to indemnify and save Owner harmless from all claims growing out of lawful demands of subcontractors, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in furthering the performance of this Contract. When so desired by Owner, Contractor shall furnish satisfactory evidence that all obligations of nature herein designated, have been paid, discharged, or waived. If Contractor fails, Owner may, at Contractor option, pay directly any unpaid bills, of which Owner has written notice, or withhold from Contractor's unpaid compensation a sum of money deemed reasonably sufficient to liquidate any/all such lawful claims until satisfactory evidence is furnished that all liabilities were fully discharged, whereupon payments to Contractor shall be resumed in full, in accordance with terms of this Contract, but in no event shall provisions of this article be construed to impose any obligations upon Owner by either Contractor or surety.


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GC-38. PROTECTION AGAINST ROYALTIES OR PATENTED INVENTION

Contractor shall pay all royalties and license fees and provide use of any design, device, material, or process covered by letters patent or copyright by suitable legal contract with patentee/owner. Contractor shall defend all suits/claims for infringement of any patent/copyrights and indemnify and save Owner harmless from any loss on account thereof, except Owner shall defend all such suits and claims and be responsible for all such loss when a particular design, device, material, or process/product of a particular manufacturer is specified/required by Owner provided; however, if choice of alternate design, device, material, or process is allowed, Contractor shall indemnify and save Owner harmless from any loss on account of thereof. If material/process specified/required by Owner is an infringement, Contractor shall be responsible for such loss unless promptly giving such information to Owner.

GC-39. LAWS AND ORDINANCES

Contractor shall always observe and comply with all Federal, State, and local laws, ordinances, and regulations, which affect Contractor Work, and indemnify and save harmless Owner against any claims arising from violation of any such laws, ordinances, and regulations by Contractor or employees, except where such violations are called for by provisions of Contract Documents. If Plans and Specifications are at variance therewith, Contractor shall promptly notify Architect/Engineer in writing, and any necessary changes be adjusted as provided in Contract for changes in Work. If Contractor performs any work knowing it to be contrary to such laws, ordinances, rules, regulations, and without such notice to Architect/Engineer, Contractor shall bear all costs arising therefrom. In case Owner is a body politic and corporate law deriving powers, insofar as same regulates objects for which, in manner in which, or conditions under which Owner may enter into contract, shall be controlling, and considered as part of this Contract, to same effect as though embodied herein.

GC-40. ASSIGNMENT AND SUBLETTING

Contractor further agrees to retain personal control and give personal attention to fulfillment of Contract and not assign by Power of Attorney, or otherwise, or sublet said Contract without written consent of Owner, and no part or feature of Work will be sublet to anyone objectionable to Architect/Engineer or Owner. Contractor further agrees subletting of any portion/feature of Work or materials required in performance of this Contract, shall not relieve Contractor from full obligations to Owner, as provided by this Contract.

GC-41. TIME AND ORDER OF COMPLETION

It is the meaning and intent of this Contract, unless otherwise herein specifically provided, Contractor be allowed to prosecute Work at such times and sessions, in such order of precedence and manner most conducive to economy of construction provided; however, order and time of prosecution shall be such that Work shall be substantially completed as a whole or in part, in accordance with this Contract, Plans, and Specifications, and within time of completion designated in proposal; provided also, when Owner is having other work done, by contract or his own force, Architect/Engineer may direct time and manner of constructing Work done under this Contract so conflict will be avoided and construction of various works done for Owner shall be harmonized.

Contractor shall submit, at such times reasonably requested by Architect/Engineer, schedules to show order in which Contractor proposes to carry on Work, with dates at which Contractor will start several parts of Work and estimated dates of completion of several parts.

GC-42. EXTENSION OF TIME

Should Contractor be delayed in completion of Work by any act/neglect of Owner, Architect/Engineer, any employee of either, other contractors employed by Owner, changes ordered in Work, strikes, lockouts, fires, and unusual delays by common carriers, unavoidable cause(s) beyond Contractor's control, or any cause which Architect/Engineer decides justifies delay, an extension of time shall be allowed for completing Work, sufficient to compensate for delay, amount of extension determined by Architect/Engineer, provided, however, Contractor shall give Architect/Engineer prompt notice in writing of cause of such delay.

GC-43. HINDRANCES AND DELAYS

No claims shall be made by Contractor for damages resulting from hindrances/delays from any cause (except where Work is stopped by order of Owner for own convenience) during progress of any portion of Work embraced in this Contract. In case said Work shall be stopped by act of Owner, such expense as in judgment of Architect/Engineer is caused by such stoppage of said Work shall be paid by Owner to Contractor.

GC-44. QUANTITIES AND MEASUREMENTS

No extra or customary measurements of any kind allowed, but actual measured and/or computed length, area, solid contents, number, and weight only considered, unless otherwise specifically provided.

GC-45. ESTIMATED QUANTITIES

This Contract, including Specifications, Plans, and estimate, is intended to clearly show all Work to be done and material furnished hereunder. Where estimated quantities are shown for various classes of work to be done and material furnished under this Contract, they are approximate, used only as a basis for estimating probable cost of Work, and comparing proposals offered for Work. It is understood and agreed the actual amount of Work to be done and material furnished under this Contract may differ somewhat from these estimates, and where basis for payment under this Contract is unit price method, payment shall be for actual amount of such work done and material furnished.

Where payment is based on unit price method, Contractor agrees to make no claim for damages, anticipated profits, or otherwise on account of any differences found between quantities of Work actually done, material actually furnished under this Contract, and estimated quantities contemplated and contained in proposal; provided, however, where actual quantity of any major item in this Contract is an estimated quantity and actual quantity of such "major item" varies more than 25 percent above or below estimated quantity stated in this Contract, an equitable adjustment in Contract price shall be made upon demand of either party. Equitable adjustment shall be based upon any increase/decrease in costs due solely to variation above 125 percent or below 75 percent of estimated quantity.

"Major Item" shall be any individual bid item included in proposal with a total cost equal to or greater than 10 percent of total Contract cost, computed on basis of original bid proposal, quantities, and Contract unit prices.

Any revised consideration is to be determined by agreement between parties, otherwise by terms of this Contract, as provided under "Extra Work."

GC-46. PARTIAL PAYMENTS

On/before the last day of each month, Contractor shall prepare for Architect/Engineer review, a statement showing, as completely as practicable, total value of Work done by Contractor for prior month/period. Statement shall also include value of all sound materials delivered on site of Work to be fabricated into Work. Architect/Engineer, after approval, shall submit Contractor's partial pay application to Owner.

Owner shall then pay Contractor total amount of Architect/Engineer's statement, less 5 percent of amount thereof, which 5 percent shall be retained until final payment, and further less all previous payments and all further sums may be retained by Owner under terms of this Contract. It is understood; however, in case whole Work be near to completion and some unexpected and unusual delay occurs due to no fault or neglect on part of Contractor, Owner may, upon Architect/Engineer written recommendation, pay a reasonable and equitable portion of retained percentage to Contractor; or Contractor, at Owner's option, may be relieved of obligation to fully complete Work, and thereupon, Contractor shall receive payment of balance due under Contract subject only to conditions stated under "Final Payment."

GC-47. USE OF COMPLETED PORTIONS

Owner shall have the right to take possession of and use any completed/partially completed portions of Work, notwithstanding time for completing entire Work or such portions may not have expired but such taking possession and use shall not be deemed an acceptance of any work not completed in accordance with Contract Documents. If such prior use increases cost of or delays Work, Contractor shall be entitled to such extra compensation, or extension of time, or both, as Architect/Engineer determines.

GC-48. FINAL COMPLETION AND ACCEPTANCE

Within 20 days after Contractor gives Architect/Engineer written notice that Work is complete, Architect/Engineer and Owner shall inspect Work and within said time, if Work is completed in accordance with Contract Documents, Architect/Engineer shall issue to Owner and Contractor a Certificate of Completion, and thereupon it shall be duty of Owner, within 10 days, to issue a Certificate of Acceptance of Work to Contractor.

GC-49. FINAL PAYMENT

Upon issuance of Certificate of Completion, Architect/Engineer shall proceed to make final measurements and prepare final statement of value of all Work performed and materials furnished under terms of Contract and certify same to Owner, who shall pay Contractor on/before the 20th day after date of Certificate of Completion, or if governmental financial assistance is involved, within 30 working days of receipt of Final Payment from applicable governmental authority, balance due Contractor under terms of this Contract, provided full performance of contractual obligations under terms of this Contract; and said payment shall become due in any event upon said performance by Contractor. Neither Certificate of Acceptance, final payment, nor any provision in Contract Documents, shall relieve Contractor of obligation for fulfillment of any warranty required in Special Provisions of Specifications.

GC-50. PAYMENT WITHHELD

Owner may, on account of subsequently discovered evidence, withhold/nullify whole/part of any certificate to such extent as necessary for protection from loss on account of:

a. Defective work not remedied;
b. Claims filed or reasonable evidence indicating possible filing of claims;
c. Contractor failure to make payments properly to subcontractors, for material, or labor; and/or
d. Damage to another contractor.

When grounds removed or Contractor provides a Surety Bond satisfactory to Owner to protect Owner in amount withheld, payment shall be made for amounts withheld because of them.

GC-51. DELAYED PAYMENTS

Should Owner fail to pay Contractor of sum named in any partial/final statement, when payment is due, or Architect/Engineer fails to issue any statement on/before date provided, Owner shall pay Contractor, in addition to sum shown as due by such statement, interest thereon at the rate of 6 percent per annum, unless otherwise specified, from date due as provided under "Partial Payments" and "Final Payments," until fully paid, fully liquidating any injury to Contractor growing out of such delay in payment, but right is expressly reserved to Contractor in the event payments not promptly made as provided under "Partial Payments," to at any time thereafter treat Contract as abandoned by Owner and recover compensation, as provided under "Abandonment of Contract," unless such payments are withheld in accordance with provisions of "Payments Withheld."

GC-52. EXTRA WORK

"Extra Work," as used in this Contract, shall mean/include all Work required by Architect/Engineer or Owner done by Contractor to accomplish any change, alteration, or addition to Work shown upon Plans, or reasonably implied by Specifications, and not covered by Contractor's Proposal, except as provided under "Changes and Alterations" herein.

It is agreed Contractor shall perform all Extra Work under Architect/Engineer direction when presented with a written Extra Work Order signed by Architect/Engineer, subject, however, to right of Contractor to require a written confirmation of such Extra Work Order by Owner. It is also agreed compensation to be paid Contractor for performing said Extra Work shall be determined by one or more of the following methods:

Method A - By agreed unit prices; or
Method B - By agreed lump sum; or
Method C - If neither Methods A nor B are agreed upon before Extra Work is commenced, Contractor shall be paid "actual field cost" of Work, plus 15 percent.

In the event said Extra Work be performed and paid for under Method C, provisions of this Article shall apply and "actual field cost" defined to include cost of all workmen such as foremen, timekeepers, mechanics, and laborers, and materials, supplies, teams, trucks, rentals on machinery and equipment, for time actually employed/used on such Extra Work, plus actual transportation charges necessarily incurred, together with all expenses incurred directly on account of such Extra Work, including Social Security, Old Age Benefits, Maintenance Bonds, Public Liability and Property Damage, Workmen's Compensation, and all other insurance as required by any law/ordinance, or directed by Architect/Engineer or Owner, or by them agreed to. Architect/Engineer may direct form in which accounts of "actual field cost" shall be kept and records of these accounts made available to Architect/Engineer. Architect/Engineer may also specify in writing, before Work commences, method of doing Work as well as type and kind of machinery and equipment to be used; otherwise, these matters determined by Contractor. Unless otherwise agreed upon, prices for use of machinery and equipment shall be determined by using 100 percent, unless otherwise specified, of the latest schedule of Equipment Ownership Expense adopted by the Associated General Contractors of America. Where practicable, terms and prices for use of machinery and equipment shall be incorporated in Written Extra Work Order. The 15 percent of "actual field cost" paid Contractor, shall cover and compensate profit, overhead, general superintendence and field office expense, and all other elements of cost and expense not embraced within "actual field cost" as herein defined, save that where Contractor's Camp or Field Office must be maintained primarily on account of such Extra Work, then cost to maintain and operate same shall be included in "actual field cost."

No claim for Extra Work of any kind allowed unless Architect/Engineer orders in writing. In case any oral/written orders/instructions appear to Contractor to involve Extra Work for which compensation or adjustment in construction time should be received, Contractor shall make written request to Architect/Engineer for written order authorizing such Extra Work. Should a difference of opinion arise as to what does/does not constitute Extra Work, or as to payment therefor, and Architect/Engineer insists upon performance, Contractor shall proceed with Work after making written request for written order and keep an accurate account of "actual field cost" thereof, as provided under Method C. Contractor will thereby preserve right to submit matter of payment by filing a claim as herein provided.

GC-53. TIME OF FILING CLAIMS

It is further agreed by both parties hereto, all questions of dispute/adjustment presented by Contractor shall be in writing and filed with Architect/Engineer within 15 days after Architect/Engineer gives any directions, order, or instruction to which Contractor desires to take exception. Architect/Engineer shall reply to such written exceptions by Contractor and render a final decision in writing. In case Contractor should appeal from Architect/Engineer's decision, appeal shall be filed with Architect/Engineer and Owner in writing within 10 days after date of delivery to Contractor of Architect/Engineer's final decision. It is further agreed Final Acceptance of Work by Owner and acceptance by Contractor of Final Payment, shall be a bar to any claim by either party, except as noted otherwise in Contract Documents.

GC-54. DELETED

GC-55. ABANDONMENT BY CONTRACTOR

In case Contractor should abandon and fail/refuse to resume Work within 10 days after written notification from Owner or Architect/Engineer, or Contractor fails to comply with Architect/Engineer orders, when such orders are consistent with Contract Documents, then if where a performance bond exists, Surety on bond shall be notified in writing and directed to complete Work, and a copy of said notice be delivered to Contractor.

After receiving said notice of abandonment, Contractor shall not remove from Work any machinery, equipment, tools, materials, or supplies on the job, but same, together with any materials and equipment under contract for Work, may be held for use on Work by Owner or Surety on construction bond, or another contractor in completion of Work; and Contractor shall not receive any rental/credit therefor (except when used in connection with Extra Work, where credit allowed as provided for under "Extra Work"), it understood use of such equipment and materials will ultimately reduce cost to complete Work and reflected in final settlement.

If no performance bond provided or Surety should fail to commence compliance with notice for completion herein provided for, within 10 days after service of such notice, Owner may provide for completion of Work in either of the following elective manners:

a. Owner may thereupon employ such force of men and use such machinery, equipment, tools, materials, and supplies as Owner deems necessary to complete Work and charge expense of such labor, machinery, equipment, tools, materials, and supplies to Contractor, and expense charged shall be deducted and paid by Owner out of such moneys due or may thereafter any time become due to Contractor under and by virtue of this Contract. In case such expense is less than sum payable under this Contract, if same had been completed by Contractor, then Contractor shall receive the difference. In case such expense is greater than sum payable under this Contract, if same completed by said Contractor, then Contractor and/or Surety shall pay amount of such excess to Owner; or

b. Owner under sealed bids, after five days' notice, published one or more times in a newspaper having general circulation in county of location of Work, may let Contract for completion of Work under substantially same terms and conditions provided in this Contract. In case of any increase in cost to Owner under new contract as compared to what would have been cost under this Contract, such increase shall be charged to Contractor and Surety shall remain bound therefor. However, should cost to complete any such new contract prove less than cost to complete under this Contract, Contractor and/or Surety shall be credited therewith.

When Work shall have been substantially completed, Contractor and Surety shall be so notified and Certificates of Completion and Acceptance, as provided herein, issued. Complete itemized statement of Contract accounts, certified to by Architect/Engineer as correct, shall then be prepared and delivered to Contractor and Surety, whereupon Contractor and/or Surety, or Owner as case may be, shall pay balance due as reflected by said statement, within 15 days after date of such Certificate of Completion.

In the event statement of accounts shows cost to complete Work is less cost to Owner, had Work been completed by Contractor under terms of this Contract; or when Contractor and/or Surety shall pay balance shown due by them to Owner, then all machinery, equipment, tools, materials, or supplies left on site of Work shall be turned over to Contractor and/or Surety. Should cost to complete Work exceed Contract price and Contractor and/or his Surety fail to pay amount due Owner within time designated herein, and there remains any machinery, equipment, tools, materials, or supplies on site of Work, notice thereof, together with an itemized list of such equipment and materials shall be mailed to Contractor and Surety at respective addresses designated in this Contract, provided; however, actual written notice given in any manner will satisfy this condition. After mailing or other giving of such notice, such property shall be held at risk of Contractor and Surety subject only to duty of Owner to exercise ordinary care to protect such property. After 15 days from date of said notice, Owner may sell such machinery, equipment, tools, materials, or supplies and apply net sum derived from such sale to credit of Contractor and Surety. Such sale may be made at public/private sale, with/without notice, as Owner elects. Owner shall release any machinery, equipment, tools, materials, or supplies, which remain on Work, and belong to persons other than Contractor or Surety, to proper owners. Books on all operations provided herein shall be open to Contractor and Surety.

GC-56. ABANDONMENT BY OWNER

In case Owner shall fail to comply with Contract terms and fail/refuse to comply with said terms within 10 days after written notification by Contractor, Contractor may suspend/wholly abandon Work and remove therefrom all machinery, tools, equipment, and all materials on site of work not included in payments to Contractor and have not been wrought into Work. And thereupon Architect/Engineer shall make an estimate of total amount earned by Contractor, which estimate shall include value of all Work actually completed by said Contractor (at prices stated in attached proposal where unit prices are used), value of all partially completed Work at a fair and equitable price, and amount of all Extra Work performed at prices agreed upon, or provided for by terms of this Contract, and a reasonable sum to cover cost of any provisions made by Contractor to carry whole work to completion and which cannot be utilized. Architect/Engineer shall then make a final statement of balance due Contractor by deducting from estimates all previous payments by Owner and other sums retained by Owner under terms of this Contract and certify same to Owner who shall pay to Contractor on or before 30 days after date of notification by Contractor, balance shown by said final statement as due Contractor, under terms of this Agreement.

# IMPORTANT NOTICE

## Conflict Of Interest Reporting Requirements

Compliance with LOCAL GOVERNMENT CODE TITLE 5. MATTERS AFFECTING PUBLIC OFFICERS AND EMPLOYEES SUBTITLE C. MATTERS AFFECTING PUBLIC OFFICERS AND EMPLOYEES OF MORE THAN ONE TYPE OF LOCAL GOVERNMENT CHAPTER 176. DISCLOSURE OF CERTAIN RELATIONSHIPS WITH LOCAL GOVERNMENT OFFICERS; PROVIDING PUBLIC ACCESS TO CERTAIN INFORMATION.

**Form CIQ:** This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session. This questionnaire shall be filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a). By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code. A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

Bidders are responsible for filing Conflict of Interest form "CIQ" in accordance with the above referenced statute. Failure to do so is a class C Misdemeanor. Contracts or Purchase Orders awarded to a vendor that has violated this law is subject to termination at such time that the violation is discovered with no recourse to the City of Midland. The Bidder will be subsequently removed from the Bidders list for a minimum of one year.

When there is no known conflict of interest as defined by the statute, it is not necessary to file/submit the Form CIQ. The form must be submitted if a conflict is subsequently discovered.

By submitting a response to this request, vendor represents that it complies with the requirements of Chapter 176 of the Texas Local Government Code.

For a current list of the local government officers go to: http://www.midlandtexas.gov/

Upon completion of the form, sign and submit with Bid or mail to:

City of Midland
Attn: City Secretary
PO Box 1152
Midland, Texas 79702

# CONFLICT OF INTEREST QUESTIONNAIRE

**FORM CIQ**

**For vendor doing business with local governmental entity**

**This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.**

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

**OFFICE USE ONLY**

Date Received

**1** **Name of vendor who has a business relationship with local governmental entity.**

**2** ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

**3** **Name of local government officer about whom the information is being disclosed.**

_____

Name of Officer

**4** **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

**5** **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director or holds an ownership interest of one percent or more.**

**6** **Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).** ☐

**7**

Signature of vendor doing business with the governmental entity — Date

PACKET 18:80 November 14, 2023

# CONFLICT OF INTEREST QUESTIONNAIRE
## For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

**Local Government Code § 176.001(1-a):** "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;

(B) a transaction conducted at a price and subject to terms available to the public; or

(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

**Local Government Code § 176.003(a)(2)(A) and (B):**

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

**Local Government Code § 176.006(a) and (a-1)**

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for Bids or Bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

## GENERAL CIVIL RIGHTS PROVISIONS

In all its activities within the scope of its airport program, the Contractor agrees to comply with pertinent statutes, Executive Orders, and such rules as identified in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

## Specific Clause used for General Contract Agreements

The above provision binds Contractor and subcontractors from the bid solicitation period through the completion of the contract.

**Title VI Solicitation Notice:**

The Midland Airpark, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that for any contract entered into pursuant to this advertisement, select businesses, or disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and no businesses will be discriminated against on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in consideration for an award.

### Title VI List of Pertinent Nondiscrimination Acts and Authorities

During the performance of this contract, Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq*., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 *et seq*.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 *et seq*.) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);

- The Civil Rights Restoration Act of 1987 (PL 100-259) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990 (42 USC § 12101, et seq) (prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration's Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations);
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs 70 Fed. Reg. 74087 (2005);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC § 1681, et seq).

**Compliance with Nondiscrimination Requirements:**

During the performance of this contract, Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor"), agrees as follows:

1. **Compliance with Regulations:** Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by Contractor of Contractor's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.

4. **Information and Reports:** Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, Contractor will so certify to the Sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance:** In the event of a Contractor's noncompliance with the non-discrimination provisions of this contract, the Sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

    a. Withholding payments to Contractor under the contract until Contractor complies; and/or

    b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. **Incorporation of Provisions:** Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. Contractor will take action with respect to any subcontract or procurement as the Sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, Contractor may request the Sponsor to enter into any litigation to protect the interests of the Sponsor. In addition, Contractor may request the United States to enter into the litigation to protect the interests of the United States.

## DAVIS-BACON REQUIREMENTS

1. Minimum Wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to

skill, except as provided in 29 CFR § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination;

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event Contractor, the laborers, or mechanics to be employed in the classification, or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If Contractor does not make payments to a trustee or other third person, Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, that the Secretary of Labor has found, upon the written request of Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding. The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from Contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Federal Aviation Administration may, after written notice to Contractor, Sponsor, Applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and Basic Records.

(i) Payrolls and basic records relating thereto shall be maintained by Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, Contractor shall maintain records that show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, Contractor will submit the payrolls to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR § 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (*e.g.*,

the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at *http://www.dol.gov/esa/whd/forms/wh347instr.htm* or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker and shall provide them upon request to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, Contractor will submit them to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration, Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, Sponsor, or Owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR § 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR § 5.5 (a)(3)(i), and that such information is correct and complete;

(2) That each laborer and mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) Contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Sponsor, the Federal Aviation Administration, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. If Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to Contractor, Sponsor, applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR § 5.12.

4. Apprentices and Trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR § 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination that provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the

applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal Employment Opportunity. The utilization of apprentices, trainees, and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act Requirements.

Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

6. Subcontracts.

Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR §§ 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR § 5.5.

7. Contract Termination: Debarment.

A breach of the contract clauses in paragraph 1 through 10 of this section may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR § 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes Concerning Labor Standards.

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of Eligibility.

(i) By entering into this contract, Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR § 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR § 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 USC § 1001.

**CERTIFICATION OF OFFEROR/BIDDER REGARDING DEBARMENT**

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

"General Decision Number: TX20230002 01/06/2023

Superseded General Decision Number: TX20220002

State: Texas

Construction Types: Heavy and Highway

Counties: Armstrong, Carson, Crosby, Ector, Irion, Lubbock, Midland, Potter, Randall, Taylor and Tom Green Counties in Texas.

HEAVY & HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

| | |
|---|---|
| If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022: | . Executive Order 14026 generally applies to the contract.<br>. The contractor must pay all covered workers at least $16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023. |
| If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022: | . Executive Order 13658 generally applies to the contract.<br>. The contractor must pay all covered workers at least $12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023. |

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

SUTX2011-002 08/02/2011

| | Rates | Fringes |
|---|---|---|
| CEMENT MASON/CONCRETE FINISHER (Paving & Structures) | $ 13.55 ** | |
| ELECTRICIAN | $ 20.96 | |
| FORM BUILDER/FORM SETTER | | |
| Paving & Curb | $ 12.36 ** | |
| Structures | $ 13.52 ** | |
| LABORER | | |
| Asphalt Raker | $ 12.28 ** | |
| Flagger | $ 9.30 ** | |
| Laborer, Common | $ 10.30 ** | |
| Laborer, Utility | $ 11.80 ** | |
| Work Zone Barricade Servicer | $ 10.30 ** | |
| POWER EQUIPMENT OPERATOR: | | |
| Asphalt Distributer | $ 14.87 ** | |
| Asphalt Paving Machine | $ 13.40 ** | |
| Broom and Sweeper | $ 11.21 ** | |
| Crane, Lattice Boom 80 Tons or Less | $ 16.82 | |
| Crawler Tractor Operator | $ 13.96 ** | |
| Excavator, 50,000 lbs or less | $ 13.46 ** | |
| Front End Loader Operator, Over 3 CY | $ 12.77 ** | |
| Front End Loader, 3CY or less | $ 12.28 ** | |
| Loader/Backhoe | $ 14.18 ** | |
| Mechanic | $ 20.14 | |
| Milling Machine | $ 15.54 ** | |
| Motor Grader, Rough | $ 16.15 ** | |
| Motor Grader, Fine | $ 17.49 | |
| Pavement Marking Machine | $ 16.42 | |
| Reclaimer/Pulverizer | $ 12.85 ** | |
| Roller, Asphalt | $ 10.95 ** | |
| Roller, Other | $ 10.36 ** | |
| Scraper | $ 10.61 ** | |
| Spreader Box | $ 12.60 ** | |
| Servicer | $ 13.98 ** | |
| Steel Worker (Reinforcing) | $ 13.50 ** | |
| TRUCK DRIVER | | |
| Lowboy-Float | $ 14.46 ** | |
| Single Axle | $ 12.74 ** | |
| Single or Tandem Axle Dump | $ 11.33 ** | |
| Tandem Axle Tractor with Semi | $ 12.49 ** | |

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher

minimum wage under Executive Order 14026 ($16.20) or 13658 ($12.15). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and

the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

# SECTION 01 10 00 - SUMMARY

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Work covered by Contract Documents.
   2. Contractor use of site and premises.
   3. Work sequence.
   4. Owner occupancy.
   5. Permits.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Owner: City of Midland.
B. Identification: Midland Airpark Entry Road Enhancements.
C. Location: Midland, Texas.
D. Midland Airpark (MDD) Entry Road will be reconstructed from airport facilities to 150 feet east of North A Street and Veteran's Airpark Lane intersection, including replacement of the low-water crossing at Jal Draw.

   Scope of Work consists of construction of a 120-foot (two 60-foot spans) concrete pretensioned I-girder bridge, approaches, associated riprap, and channel grading improvements. Work items include rehabilitation of roadway approaches and airport entry roads with hot-mix asphalt, flexible base, sub-grade preparation, grading, and driveway construction. Additionally, the Project includes constructing temporary access road, erosion control, pavement markings, signage, security gate, and electrical improvements.

1.3 CONTRACTOR USE OF SITE AND PREMISES

A. Limit use of site and premises to allow:
   1. Owner occupancy.
   2. Work by others and Owner.
   3. Public access for ingress and egress.

B. Construction operations: Limited to areas noted on Drawings.
C. Time restrictions for performing Work:
   1. Work may commence between the hours of 7:00 AM and 6:00 PM, Monday through Friday, not including Saturdays, Sundays, or City of Midland designated holidays.
   2. Pre-identified adverse weather conditions/days.

D. Utility outages and shutdowns.
   1. Coordinate and schedule utility outages/shutdown.
   2. Schedule at least one week before outage/shutdown.
   3. Submit outage/shutdown request to Engineer itemizing dates, times, and durations of early requested outage/shutdown.


PACKET 18.96 November 14, 2023

1.4 WORK SEQUENCE

A. Construct Work in phases to accommodate Owner requirements during construction. Coordinate construction schedule and operations with Engineer:
   1. Phase 1: Airport entry roads temporary access road construction.
   2. Phase 2: Concrete bridge construction.
   3. Phase 3: Roadway approach and intersection construction.

1.5 OWNER OCCUPANCY

A. Owner will occupy premises during construction to conduct normal operations.
B. Cooperate with Owner to minimize conflict and facilitate Owner operations.

1.6 PERMITS

A. Furnish all necessary permits for construction of Work including:
   1. Stormwater permit.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 20 00 - PRICE AND PAYMENT PROCEDURES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Application for Payment.
   2. Change Procedures.
   3. Measurement and payment - unit prices.
B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 APPLICATIONS FOR PAYMENT

A. Submit application on Engineer-provided/-approved Application for Payment.
B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
C. Payment Period: As defined in Owner-Contractor agreement.
D. Complete Application for Payment includes Construction progress schedule, and submittal schedule, all required to process Application for Payment.

1.3 CHANGE PROCEDURES

A. Submittals: Submit name of person authorized to receive change documents and responsible for informing others in Contractor's employ or subcontractors of changes to Work.
B. Carefully study and compare Contract Documents before proceeding with fabricating and installing Work. Promptly advise Engineer of any error, inconsistency, omission, or apparent discrepancy.
C. Requests for Information (RFI) and Clarifications: Allot time in construction scheduling for liaison with Engineer. Establish procedures for handling queries and clarifications.
   1. Use Newforma for requesting information.
   2. Engineer may respond with a direct answer on RFI form through Newforma.
D. Engineer will advise of minor changes in the Work not involving adjustment to Contract Price or Time by issuing supplemental instructions through Newforma.
E. Engineer may issue a change order through Newforma, including a detailed description of proposed change with supplementary or revised Drawings and Specifications for executing change. Contractor will prepare and submit proposed change in Contractor Price and/or Time within seven days.
F. Contractor may propose changes by submitting a request for change to Engineer, describing proposed change, and its full effect on Work. Include a statement describing reason for change, effect on Contract Price and Time, with full documentation.
G. Document requested substitutions per Section 01 25 00 "Substitution Procedures."
H. Stipulated Price Change Order: Based on Engineer-provided form and Contractor's fixed price quotation as recommended by Engineer and accepted by Owner and Contractor.
I. Unit Price Change Order: For Contract unit prices and quantities, Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units not predetermined, execute Work under Engineer-provided form as recommended by Engineer and accepted by Owner and Contractor.

J. Work Directive Change: Engineer may issue directive on Engineer-provided form signed by Owner, instructing Contractor to proceed with change in Work, for subsequent inclusion in Change Order. Document will describe changes in Work and designate method of determining any change in Contract Price or Time. Promptly execute change.
K. Document each quotation for change in Project Cost or Time with sufficient data to allow evaluation of quotation.
L. Change Order Forms: Engineer provided and EJCDC C-941.
M. Execution of Change Orders: Engineer will issue Change Orders for signatures of parties as provided in Conditions of the Contract.
N. Correlation of Contractor Submittals:
    1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Price.
    2. Promptly revise Progress Schedules to reflect change in Contract Time, revise subschedules to adjust times for other items of Work affected by change and resubmit.
    3. Promptly enter changes in Record Documents.

1.4 UNIT PRICES

A. Authority: Measurement methods delineated in Section 01 22 00 “Measurement and Payment.”
B. Take measurements and compute quantities. Engineer to verify.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 22 00 - MEASUREMENT AND PAYMENT

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Procedures for measurement and payment.
   2. Mobilization demobilization.
   3. Unit price items.
   4. Bid Form-specific payment items.

B. Related Requirements:
   1. Section 00 41 00 “Bid Form.”
   2. Other Division 01 Specification Sections apply to Work of the Section.

### 1.2 PROCEDURES FOR MEASUREMENT AND PAYMENT

A. Unit price bid on each item as stated in Section 00 41 00 “Bid Form” includes furnishing all labor, superintendence, machinery, equipment, and materials, except as otherwise specified, necessary, or incidental to complete various item of Work per Drawings and Specifications.

B. Cost of Work or materials shown on Drawings or called for in Specifications and on which no separate payment is made, included in bid prices on various pay items.

C. Payment not made for any items not complete, including all associated incidental Work.

### 1.3 MOBILIZATION/DEMOBILIZATION

A. Payment made for mobilization and demobilization on lump sum basis.

B. Bid amount for mobilization and demobilization shall not exceed 5 percent of total Bid Price.

C. Work under this item consists of preparatory work and operations, including but not limited to those necessary for movement of personnel, equipment, supplies, and incidentals to Work; establish all offices, buildings, and other facilities necessary for Work; and all other work and operations performed or costs incurred prior to beginning work on various items of Work.

D. Payment for mobilization and demobilization will be on a lump sum basis with partial payments as noted. The adjusted Contract Amount as used herein is defined as the total Contract amount less lump sum for mobilization and demobilization.
   1. First Application for Payment: 50 percent of lump sum.
   2. Second Application for Payment: 75 percent of the lump sum.
   3. When 10 percent of adjusted Contract amount is earned, 90 percent of mobilization and demobilization lump sum.
   4. Final Application for Payment: 100 percent of mobilization and demobilization lump sum.

### 1.4 UNIT PRICE ITEMS

A. Unit price items, not otherwise included herein, paid at a unit price per unit.

B. Payment will include all work and material for installing unit price item as specified.

C. Measurement made in units shown on Section 00 41 00 “Bid Form.”

1.5 BID FORM-SPECIFIC PAYMENT ITEMS

A. Non-TxDOT Items:
   1. Hydraulic Gate Improvements.
   2. Electrical Improvements.

B. Refer to Applicable TxDot Specification for measurement and payment of all other items.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 25 00 - SUBSTITUTION PROCEDURES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Quality assurance.
   2. Product options.
   3. Product substitution procedures.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 QUALITY ASSURANCE

A. Contract is based on products and standards established in Contract Documents without consideration of proposed substitutions.

B. Products specified define standard of quality, type, function, dimension, appearance, and performance required.

C. Substitution Proposals: Permitted for specified products except where specified otherwise. Do not substitute products unless Owner accepts substitution and approves in writing.

1.3 PRODUCT OPTIONS

A. See Section 01 60 00 “Product Requirements.”

1.4 PRODUCT SUBSTITUTION PROCEDURES

A. Substitutions may be considered when product becomes unavailable through no fault of Contractor.

B. Document each request with complete data, substantiating compliance of proposed substitution with Contract Documents, including:
   1. Manufacturer name and address, product, trade name, model, or catalog number, performance and test data, and reference standards.
   2. Itemized point-by-point comparison of proposed substitution with specified product, listing variations in quality, performance, and other pertinent characteristics.
   3. Reference to Article numbers in Specifications.
   4. Cost data comparing proposed substitution with specified product and amount of net change to Contract Sum.
   5. Changes required in other Work.
   6. Availability of maintenance service and source of replacement parts, as applicable.
   7. Certified test data to show compliance with performance characteristics specified.
   8. Samples when applicable or requested.
   9. Other information as necessary to assist Engineer’s evaluation.

C. A request constitutes a representation Contractor:
   1. Investigated proposed product and determined it meets/exceeds quality level of specified product.
   2. Will provide same warranty for substitution as specified product.

3. Will coordinate installation and make changes to other Work required for Work to complete with no additional cost to Owner.
4. Waives claims for additional costs/time extension that subsequently become apparent.
5. Will coordinate installation of accepted substitute, making required changes for Work to complete in all respects.
6. Will reimburse Owner for review/redesign services associated with reapproval by authorities having jurisdiction.

D. Substitutions not considered when indicated/implied on Shop Drawing or Product Data submittals without separate written request or acceptance requires revision to Contract Documents.

E. Substitution Submittal Procedure:
1. Submit requests for substitutions on Contractor-standard or Engineer-provided form.
2. Submit electronic files to Project website of Request for Substitution for consideration. Limit each request to one proposed substitution.
3. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalence. Burden of proof is on Contractor.
4. Engineer will notify Contractor in writing of decision to accept/reject request.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 30 00 - ADMINISTRATIVE REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Project Information Management.
   2. Coordination.
   3. Preconstruction meeting.
   4. Electronic drawing file (digital data) request.
   5. Request for information.
   6. Progress meetings.
   7. Preinstallation meetings.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 PROJECT INFORMATION MANAGEMENT

A. Project Website:
   1. Use Newforma Info Exchange at https://projects.team-psc.com/UserWeb/Login to send and receive Project information.
   2. Contact Engineer to set up username and password information.
   3. If Project is not listed when logged in, contact Engineer to add Project to your account.

B. Project information includes, but is not limited to:
   1. Product Submittals.
   2. Requests for Information (RFI).
   3. Applications for Payment.
   4. Schedules.
   5. Construction Change Requests (CCRs).
   6. Close-out Documents.
   7. Construction Document Files.

### 1.3 COORDINATION

A. Coordinate scheduling, submittals, and Work to assure efficient and orderly sequence of installation of construction elements.

B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate Work of various Sections having interdependent responsibilities for installing, connecting to, and placing such equipment in service.

C. Coordinate space requirements and installation of mechanical and electrical work indicated diagrammatically on Drawings. Follow routing as closely as practicable. Utilize spaces efficiently to maximize accessibility for other installations, maintenance, and repairs.

D. In finished building areas, except as otherwise indicated, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements, as applicable.

E. Coordinate completion and clean-up of Work of separate Sections in preparation for Substantial Completion.

F. After Owner occupancy of premises, coordinate access to site with Owner for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.4 PRECONSTRUCTION MEETING

A. Engineer will schedule a meeting after Notice to Proceed.
B. Attendance Required:
   1. Owner.
   2. Engineer.
   3. Contractor.
   4. Major subcontractors.
   5. Testing companies.
C. Agenda:
   1. Distribute Contract Documents.
   2. Submit lists of subcontractors and products, Schedule of Values, submittal schedule, and progress schedule.
   3. Designate personnel representing each party in Contract and Engineer.
   4. Procedures and processing field decisions, submittals, substitutions, Applications for Payments, proposal request, Change Orders, Request for Information (RFI), and Contract closeout procedures.
   5. Review Notice to Proceed and Substantial/Final Completion Dates.
   6. Workmen's identification and background checks.
   7. Stormwater Pollution and Prevention Plan (SWPPP), if necessary.
   8. Scheduling:
      a. Use of premises by Owner and Contractor.
      b. Owner's requirements and occupancy.
      c. Construction facilities and controls provided by Owner.
      d. Security and housekeeping procedures.
      e. Construction progress meetings.
      f. Procedures for testing.
      g. Procedures for maintaining record documents.
   9. Preconstruction meeting.
   10. Scheduling activities of Construction Material Testing lab.
D. Engineer shall record minutes and distribute copies to participants.

1.5 ELECTRONIC DRAWING FILE (DIGITAL DATA) REQUEST

A. Upon Award of Contract:
   1. At pre-construction meeting, Contractor shall bring the executed Digital Data Licensing Agreement (AIA C106-2013) at the end of this Section for release of electronic files. Upon Contractor submitting the executed Agreement to Engineer, Engineer will provide Contractor one electronic copy of the AutoCAD (.DWG) file(s), and Portable Document Format (.PDF) file(s) at no charge within five working days. Files and Formats to be as followed:
      a. Civil Overall master file in AutoCAD format.
         1) Overall Site Plan with utility and grading information.
         2) All details, detail annotation, and references are omitted and not part of the AutoCAD file.

2. AutoCAD DWG files provided to Contractor is NOT FOR CONSTRUCTION PURPOSES, but convenience only. The Drawing files will consist of the original model utilized for base bid. It is Contractor responsibility to coordinate all accepted alternated, addenda, RFI, Proposal Request, and any other changes realized during procurement and construction phases. Engineer will not provide up-to-date Contract Drawing Models to Contractor unless otherwise stated within Owner/Engineer Agreement.
3. Conformed Construction Documents: If required by Owner/Engineer Agreement, they will be provided in PDF. Conformed Construction Documents are Drawings and Specifications modified to include any Addenda issued before execution of the Contract.
    a. To the extent Conformed Construction Documents are provided to Contractor, the following provisions shall apply:
        1) Conformed Construction Documents and related information contained therein, are provided for Contractor's convenience only, and does not relieve Contractor from Contract Document requirements. Specifically, to the extent that any discrepancy or conflict exist between Issue for Bid documents, including any Addenda issued prior to execution of Contact or Modifications issued after execution of Contact on the one hand, and Conformed Construction Documents on the other; Issue for Bid documents Addenda, and Modifications shall control unless otherwise specified in writing by Engineer.
        2) Contractor shall not use such Drawings, documents, or other data, in whole or in part, for any purpose or project other than this Project, in preparation of Shop Drawings and other submittals.
        3) Contractor acknowledges that such Drawings, documents, or other data obtained prior to use by them for any purpose.
        4) Any Conformed Construction Documents, including any Drawings Specifications, documents, or other data related thereto, are provided "as is" without representation or warranty by Engineer, either expressed or implied.
        5) Contractor acknowledges that Conformed Construction Documents provide by Engineer are as courtesy to Contractor, at their specific request, and accordingly, CONTRACTOR HEREBY AGREES TO RELEASE, HOLD HARMLESS, DEFEND AND INDEMNIFY ENGINEER AND OWNER FROM ANY AND ALL CLAIMS, DEMANDS, OR CAUSES OF ACTION, WHICH CONTRACTOR OR ANY THIRD PARTY MAY HAVE BY REASON OF ANY INJURY OR DAMAGE SUSTAINED BY CONTRACTOR OR THIRD PARTY ARISING OUT OF OR IN ANY WAY RELATED TO THE USE OF SUCH CONFORMED CONSTRUCTION DOCUMENTS.

1.6 REQUEST FOR INFORMATION (RFI)

A. RFI requests from subcontractors or material suppliers will not be considered.
B. Information indicated on RFI shall be complete before submission. If Engineer determines request can be answered with information provided, Engineer will assign RFI tracking number. If Engineer determines request is not an RFI, request will be returned to Contractor electronically and deleted from Engineer's electronic tracking software without assigning an RFI tracking number. A transmittal document returning denied RFI request will be provided with a response indicating action to be taken by Contractor.
C. RFIs may contain more than one item when items are related. Otherwise, only one item shall be addressed on each RFI request.
D. Allow seven days for Engineer's response to each RFI.
E. Response to RFI will be issued to Contractor and Owner per Section 01 33 00 "Submittal Procedures."
F. Responses from Engineer are not changes unless issued with a change per Section 01 20 00 "Price and Payment Procedures."

1.7 PROGRESS MEETINGS

A. Schedule and administer monthly meetings throughout Work progress, at minimum.
B. Engineer will Arrange meetings, prepare agenda with copies for participants, preside at meetings.
C. Attendance Required:
    1. Owner.
    2. Job superintendent.
    3. Major subcontractors.
    4. Suppliers.
    5. Engineer.
    6. As appropriate to agenda topics for each meeting.
D. Agenda:
    1. Review minutes of previous meetings.
    2. Review Work progress.
    3. Field observations, problems, and decisions.
    4. Identify problems which impede planned progress.
    5. Review submittal schedule and status of submittals.
    6. Review off-site fabrication and delivery schedules.
    7. Maintenance of progress schedule.
    8. Corrective measures to regain projected schedules.
    9. Planned progress during succeeding Work period.
    10. Coordinate projected progress.
    11. Maintenance of quality and work standards.
    12. Effect of proposed changes on progress schedule and coordination.
    13. Testing.
    14. Other business relating to Work.
E. Record minutes and distribute copies within five days to Engineer, participants, and those affected by decisions made.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION


PACKET 18.108 November 14, 2023

Parkhill

# RFI No.

**TO:** Parkhill

**FROM:**

**PROJECT NAME:**

**PARKHILL PROJECT NO.:**

| **Issue Date:** | | ***Requested Reply Date:** | |
|---|---|---|---|

*Items to be completed by Contractor before submittal to Parkhill for review. RFI form must be fully completed for Parkhill to respond.

***RFI DESCRIPTION:** *(Fully describe the question or type of information requested. Provide photos and/or sketches as applicable to help with the description.)*

***REFERENCES/ATTACHMENTS:** *(List specific documents researched when seeking the information requested.)*

| Specifications | Drawings | Other |
|---|---|---|
| | | |

***CONTRACTOR'S PROPOSED SOLUTION:** *(If RFI concerns a site or construction condition, the sender shall provide a recommended solution, including cost and/or schedule considerations before Parkhill can respond. The proposal solution shall consist of a revised text, sketches, drawings, etc. as applicable to a full and complete explanation.)*

*Submitted by:

**RESPONSE:** *(Provide answer to RFI, including cost and/or schedule considerations, revised text, sketches, drawings, etc. as applicable to fully explain response.)*

☐ Attachments:

Response by:

Copies: ☐ Owner ☐ Consultants ☐ ☐

**Note:** This reply is not an authorization to proceed with work involving additional cost, time or both. If any reply requires a change to the Contract Documents, a Change Order, Construction Change Directive or a Minor Change in the work must be executed in accordance with the Contract Documents.

# AIA® Document C106™ – 2022

## *Digital Data Licensing Agreement*

**AGREEMENT** made as of the day of in the year
*(In words, indicate day, month, and year.)*

**BETWEEN** the Party transmitting Digital Data ("Transmitting Party"):
*(Name, address, and contact information, including electronic addresses)*

and the Party receiving the Digital Data ("Receiving Party"):
*(Name, address, and contact information, including electronic addresses)*

for the following Project:
*(Name and location or address of the Project)*

for the following Digital Data ("Digital Data"):
*(Identify below, in detail, the information created or stored in digital form that the Parties intend to be subject to this Agreement.)*

[Revit Models (.rvt files)]
[AutoCAD (.dwg files)]
[Portable Document Format (.pdf)]

The Transmitting Party and Receiving Party agree as follows.

**ADDITIONS AND DELETIONS:**
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

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**User Notes:** (913993287)

TABLE OF ARTICLES

1 GENERAL PROVISIONS

2 TRANSMISSION OF DIGITAL DATA

3 LICENSE CONDITIONS

4 LICENSING FEE OR OTHER COMPENSATION

## ARTICLE 1 GENERAL PROVISIONS

**§ 1.1** The purpose of this Agreement is to grant a license from the Transmitting Party to the Receiving Party for the Receiving Party's use of Digital Data and to set forth the license terms.

**§ 1.2** This Agreement is the entire and integrated agreement between the Parties. Except as specifically set forth herein, this Agreement does not create any other contractual relationship between the Parties.

**§ 1.3** Confidential Digital Data is Digital Data containing confidential or business proprietary information that the Transmitting Party designates as "confidential."

## ARTICLE 2 TRANSMISSION OF DIGITAL DATA

**§ 2.1** The Transmitting Party grants to the Receiving Party a nonexclusive limited license to use the Digital Data solely and exclusively for the uses, and in accordance with the terms, set forth in Article 3.

**§ 2.2** Only the Receiving Party is permitted to access and use the Digital Data. Unlicensed and unauthorized access or use by third parties is strictly prohibited except as set forth in Section 2.4.1.

**§ 2.3** The transmission of Digital Data constitutes a warranty by the Transmitting Party to the Receiving Party that the Transmitting Party is the copyright owner of the Digital Data or otherwise has permission to transmit the Digital Data to the Receiving Party for its use on the Project in accordance with the terms and conditions of this Agreement.

**§ 2.4** Where the Transmitting Party has designated information furnished pursuant to this Agreement as "confidential," the Receiving Party shall keep the information confidential and shall not disclose it to any other person or entity except as set forth in Section 2.4.1.

**§ 2.4.1** The Receiving Party may disclose Confidential Digital Data after seven (7) days' notice to the Transmitting Party where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Receiving Party may also disclose Confidential Digital Data to its employees, consultants, sureties, subcontractors and their employees, sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information.

**§ 2.5** By transmitting Digital Data, the Transmitting Party does not convey any ownership right in the Digital Data or in the software used to generate the Digital Data. Unless otherwise granted in a separate license, the Receiving Party's right to use, modify, or further transmit Digital Data is specifically limited to those uses, and in accordance with the terms, set forth in Article 3, and nothing contained in this Agreement conveys any other right to use the Digital Data.

**§ 2.6** To the fullest extent permitted by law, the Receiving Party shall indemnify and defend the Transmitting Party from and against all claims arising from or related to the Receiving Party's modification to, or unlicensed use of, the Digital Data.

**§ 2.7** Transmission of the Digital Data does not abridge or extinguish the Transmitting Party's rights, including, to the extent applicable, exclusive ownership interest, in such information under all applicable state, federal, and international laws including, without limitation, laws governing the protection of copyrights and intellectual property.

**§ 2.8** The provisions of this Article 2 shall survive the termination of this Agreement.

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**ARTICLE 3 LICENSE CONDITIONS**

**§ 3.1** The Receiving Party may use and rely upon the Digital Data to the extent set forth in this Article 3.

*(Paragraph deleted)*

[ X ] **§ 3.1.1** The Digital Data is transmitted solely for the Receiving Party's information. Receiving Party acknowledges that any use of the Digital Data shall be at Receiving Party's sole risk. The Receiving Party accepts the Digital Data "as is" without any warranty or representations from the Transmitting Party as to whether the Digital Data is accurate, complete, or fit for use as intended by the Receiving Party. The Receiving Party is solely responsible for verifying whether the Digital Data is accurate, complete, or fit for the Receiving Party's intended use.

*(Paragraphs deleted)*

**§ 3.1.1.1** This Digital Data is part of the Transmitting Party's Instruments of Service and shall not be used by Receiving Party or anyone else receiving this data through or from the Receiving Party for any purpose other than as a convenience in the preparation of bid submittals, shop drawings, coordination drawings, construction phase submittals, and field layout and staking required by the Owner for the exclusive use of the referenced Project. Any use or reuse by the Receiving Party or by others will be at the Receiving Party's sole risk and without liability or legal exposure to Transmitting Party. The Receiving Party agrees to make no claim and hereby waive, to the fullest extent permitted by law, any claim or cause of action of any nature against Transmitting Party, its officers, directors, employees, or subconsultants that may arise out of or in connection with Receiving Party's use of this Digital Data.

**§ 3.1.1.2** No representation as to the compatibility of this Digital Data with Receiving Party's hardware or software is provided.

**§ 3.1.1.3** This Digital Data is not a Construction Document. Differences may exist between this Digital Data and corresponding two-dimensional hard-copy Construction Document. The Transmitting Party makes no representation regarding the accuracy or completeness of the Digital Data the Receiving Party receives. In the event that a conflict arises between the signed/sealed two-dimensional hard-copy Construction Document prepared by Transmitting Party and the Digital Data, the signed/sealed two-dimensional hard-copy Construction Document shall govern. The Receiving Party is responsible for determining if any conflict exists. By the Receiving Party's use of this Digital Data, Receiving Party is not relieved of their duty to fully comply with the Contract Documents, including, and without limitation, the need to check, confirm and coordinate all dimensions and details, field measurements, verify field conditions and coordination of work with that of other contractors for the Project.

**§ 3.1.1.4** Because information presented in the Digital Data can be modified, unintentionally or otherwise, the Transmitting Party reserves the right to remove all indicia of ownership and/or involvement from each Digital Data.

**§ 3.1.1.5** Under no circumstances shall delivery of this Digital Data for use by the Receiving Party be deemed a sale of document ownership by Transmitting Party, and no warranties, either express or implied, of merchantability or fitness for any particular purpose is made. In no event shall the Transmitting Party be liable for any loss of profit or any consequential damages as a result of the Receiving Party's use or reuse of this Digital Data.

**§ 3.1.1.6** The Digital Data file does not necessarily contain all the information that is required to produce finished Construction Documents. Because of this, there may be data within the Digital Data that is missing, incomplete or even contradictory to the information provided in the final two dimensional Construction Documents.

**§ 3.1.1.7** Professional judgment will need to be used by the Receiving Party, along with reasonable expectations and interpretations in order to use the Digital Data for its intended purpose. Should the Transmitting Party provide revised and updated copies of the Digital Data to the Receiving Party throughout the Project, all terms and conditions of this agreement will be applicable and unchanged for all subsequent transmissions of the Digital Data

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**ARTICLE 4 LICENSING FEE OR OTHER COMPENSATION**

The Receiving Party agrees to pay the Transmitting Party the following fee or other compensation for the Receiving Party's use of the Digital Data:

*(State the fee, in dollars, or other method by which the Receiving Party will compensate the Transmitting Party for the Receiving Party's use of the Digital Data.)*

This Agreement is entered into as of the day and year first written above and terminates one year from said date, except as set forth below.

*(Indicate when this Agreement will terminate, if other than one year from the date it was entered into, and other conditions related to termination.)*

N/A

| | |
|---|---|
| **PARKHILL** | **[RECEIVING PARTY]** |
| **TRANSMITTING PARTY** *(Signature)* | **RECEIVING PARTY** *(Signature)* |
| *(Printed name and title)* | *(Printed name and title)* |

SAMPLE



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# SECTION 01 32 16 - CONSTRUCTION PROGRESS SCHEDULE

## 1.1 SUMMARY

A. Section Includes:
   1. Submittals.
   2. Gantt chart schedules.
   3. Review and evaluation.
   4. Updating schedules.
   5. Distribution.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

## 1.2 SUBMITTALS

A. Post as electronic file to Project website.

B. Submit initial progress schedule for Engineer review within 15 days after established Notice to Proceed date.

C. Schedule Updates:
   1. Submit with each Application for Payment.
   2. Projected and actual percent of completion.
   3. Completion progress by listed activity and subactivity, to within five working days prior to submittal.
   4. Changes in Work Scope and activities modified since submittal.
   5. Delays in submittals or resubmittals, deliveries, or Work.
   6. Adjusted or modified sequences of Work.
   7. Other identifiable changes.
   8. Revised projections of progress and completion.

D. Narrative Progress Report:
   1. Submit with each Application for Payment.
   2. Summary of Work completed during past period between reports.
   3. Work planned during next period.
   4. Explanation of differences between summary of Work completed and Work planned in previously-submitted report.
   5. Current and anticipated delaying factors and estimated impact on other activities and completion milestones.
   6. Corrective action taken or proposed.
   7. Other.

## 1.3 GANTT CHART SCHEDULES

A. Gantt Chart Schedule, to include at least:
   1. Identification and listing, in chronological order, activities reasonably required to complete Work, including:
      a. Subcontract Work.
      b. Major equipment design, fabrication, factory testing, and delivery dates including required lead times.

c. Move-in and other preliminary activities.
d. Equipment and equipment system test and startup activities.
e. Project closeout and cleanup.
f. Work sequences, constraints, and milestones.

2. Listings identified by Specification Section number.
3. Identification of:
   a. Horizontal time frame by year, month, and week.
   b. Duration, early start, and completion for each activity and subactivity.
   c. Critical activities and Project float.
   d. Sub-schedules to further define critical portions of Work.

1.4 REVIEW AND EVALUATION

A. Participate in joint review and evaluation of schedules with Engineer at each Progress Meeting or Application for Payment submittals.
B. Evaluate Project status to determine Work behind and ahead of schedule.
C. After review, revise schedules incorporating results of review, and resubmit within 10 days.

1.5 UPDATING SCHEDULES

A. Maintain schedules to record actual start and finish dates of completed activities.
B. Indicate progress of each activity to date of revision, with projected completion date of each activity. Update schedules to depict current status of Work.
C. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
D. Upon approval of Change Order, include change in next schedule submittal.
E. Indicate changes required to maintain Date of Substantial Completion.
F. Prepare narrative report to define problem areas, anticipated delays, and impact on schedule. Report corrective action taken or proposed and effect.

1.6 DISTRIBUTION

A. Following joint review, distribute copies to subcontractors, suppliers, Engineer, Owner, and other concerned parties.
B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 33 00 - SUBMITTAL PROCEDURES

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Submittal procedures.
   2. Resubmittal requirements.
   3. Proposed products list.
   4. Requirements for complete Shop Drawings.
   5. Product data.
   6. Test reports.
   7. Certificates.
   8. Manufacturer instructions.
   9. Manufacturer field reports.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 SUBMITTAL PROCEDURES

A. Submit to Engineer for review to check for conformance with information given and design concept expressed in Contract Documents.

B. Produce copies and distribute in accordance with this Article.

C. Use Project website to submit record documents as described in Section 01 70 00 "Execution and Closeout Requirements."

D. Transmit each submittal separately with Contractor's standard transmittal letter including Contractor name, address, and phone number. Each submittal shall contain only one Specification Section.

E. Sequentially number transmittal forms using Section number or Contractor's sequential numbering system.

F. Identify Project, Contractor, subcontractor, or supplier, pertinent Drawing sheet and detail number(s), and Specification Section number appropriate to submittal.

G. Apply Contractor's stamp, signed or initialed certifying review, verification of products required, field dimensions, adjacent construction Work, and coordination of information, is per requirements of Work and Contract Documents.

H. Schedule submittals to expedite Project and deliver to Engineer. Coordinate submission of related items.

I. For each submittal for review, allow 10 days excluding delivery time to and from Contractor.

J. Identify variations from Contract Documents and product or system limitations detrimental to successful performance of completed Work. Information, comments, field verifications, responses, or other notations marked on submittals by Contractor shall be in blue or green colors only.

K. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

L. Unrequested Submittals will not be recognized or processed.

M. Format:
   1. Submit all submittals digitally using PDF file extension. Each submittal shall be a single PDF file including transmittal letter. Multiple files for same submittal will not be accepted.
   2. Submittals in any other format, including ZIP files, will be rejected.
   3. Hard copies, not accepted.
   4. To ensure each page is legible, PDF pages of Drawings shall be same size/scale as hard copy. Where applicable, provide scale symbols to indicate scale. Illegible submittals will be rejected.
   5. Upload submittals to Project website.

N. Submittal procedures described herein apply to Construction Progress Schedule, products list, Shop Drawings, product data, samples (actual samples and digital files of same), design data, test reports, certificates, manufacturer's instructions and field reports, Erection Drawings, RFIs, and other submittals submitted to Engineer.

## 1.3 RESUBMITTAL REQUIREMENTS

A. Revise submittals as required and resubmit to meet requirements specified and noted on submittal reviews.
B. Mark as *Resubmittal*.
C. Reuse original transmittal number and supplement with sequential alphabetical or numeric suffix for each resubmittal.

## 1.4 PROPOSED PRODUCTS LIST

A. Within 15 days after date of Notice to Proceed, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

## 1.5 REQUIREMENTS FOR COMPLETE SHOP DRAWINGS

A. Printable Image Size: Minimum 8-1/2 by 11 inches, maximum 30 by 42 inches.
B. Draw details to a noted scale.
C. Draw site plans to same scale indicated on Contract Drawings.
D. Engineer-issued Construction Documents (electronic or paper format) cannot be used in any shape, form, or fashion in creating and developing Shop Drawings, except electronic files containing floor, site plans, or layout plans purchased from Engineer may be used as backgrounds for Contractor, subcontractors, sub-subcontractors, and material suppliers in Shop Drawing process.

## 1.6 PRODUCT DATA

A. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to Project.
B. Include recommendations for application and use, and reference to compliance with specified standards of trade associations and testing agencies.
C. After review, distribute per Article 1.2 "Submittal Procedures," and provide copies for Record Documents described in Section 01 70 00 "Execution and Closeout Requirements."

1.7 TEST REPORTS

A. Submit for Engineer's knowledge as Contract Administrator or Owner.
B. Submit test reports for information to assess conformance with information given and design concept expressed in Contract Documents.

1.8 CERTIFICATES

A. When specified in individual Specifications, submit certification by manufacturer, installation/application subcontractor, or Contractor, to Engineer.
B. Indicate material or product conforms to/exceeds specified requirements. Submit supporting reference data, affidavits, and certifications, as appropriate.
C. Certificates may be recent or previous test results on material or product, but must be acceptable to Engineer.

1.9 MANUFACTURER'S INSTRUCTIONS

A. When specified in individual Specifications, submit manufacturer-printed instructions for delivery, storage, assembly, installation, startup, adjusting, and finishing.
B. Identify conflicts between manufacturers' instructions and Contract Documents.
C. Indicate special procedures, conditions requiring special attention and special environmental criteria required for application or installation.

1.10 MANUFACTURER'S FIELD REPORTS

A. Submit reports for Engineer's benefit as contract administrator or for Owner.
B. Submit report within 30 days of observation to Engineer for information.
C. Submit for information to assess conformance with information given and design concept expressed in Contract Documents.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 40 00 - QUALITY REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Quality control.
   2. Tolerances.
   3. References.
   4. Testing and inspection services.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 QUALITY CONTROL

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturer's instructions. If manufacturer's instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Perform Work using persons qualified to produce required and specified quality.

D. Products, materials, and equipment may be subject to inspection by Engineer at place of manufacture or fabrication. Such inspections shall not relieve Contractor of complying with requirements of Contract Documents.

E. Supervise performance of Work to ensure Work, whether completed or in progress, will not be subjected to harmful, dangerous, damaging, or otherwise deleterious exposure during construction.

### 1.3 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' recommended tolerances and tolerance requirements in reference standards. When tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

### 1.4 REFERENCES

A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard except when more rigid requirements are specified or required by applicable codes.

B. Conform to reference standard by date of issue current as of date of Contract Documents except where specific date is established by code.

C. Obtain copies of standards and maintain onsite when required by product Specifications.

D. When requirements of indicated reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.

E. Neither contractual relationships, duties, or responsibilities of parties in Contract, nor those of Engineer shall be altered from Contract Documents by mention or inference in reference documents.

1.5 TESTING AND INSPECTION SERVICES

A. Owner will employ and pay for specified services of an independent firm to perform testing and inspection.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 43 26 - TESTING LABORATORY SERVICES

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. References.
   2. Selection and payment.
   3. Quality Assurance.
   4. Contractor submittals.
   5. Laboratory responsibilities.
   6. Laboratory reports.
   7. Limits on testing laboratory authority.
   8. Contractor responsibilities.
   9. Schedule of inspections and tests.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. ASTM C 1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation.
B. ASTM D3666 - Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials.
C. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in Testing/Inspection of Soil and Rock as Used in Engineering Design and Construction.
D. ASTM E329 - Standard Specification for Minimum Requirements for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.
E. ISO/IEC 17025.

1.3 SELECTION AND PAYMENT

A. Contractor shall employ and pay for services of an independent testing laboratory to perform specified inspection and testing.
B. Employment of testing laboratory shall in no way relieve Contractor of obligation to perform Work per Contract Document requirements.

1.4 QUALITY ASSURANCE

A. Comply with requirements of ASTM C 1077, D3666, D3740, E329, and ISO/IEC 17025.
B. Laboratory: Authorized to operate in State of Texas.
C. Laboratory Staff: Maintain a full-time, on-staff, registered Engineer to review services.

## 1.5 CONTRACTOR SUBMITTALS

A. Before starting Work, submit testing laboratory name, address, and phone number, as well as names of full-time registered Engineer and responsible officer.
B. Submit copy of laboratory facility inspection report made by Materials Reference Laboratory of National Bureau of Standards during most recent inspection, with remedy memorandum of deficiencies reported by inspection.
C. Submit Testing Laboratory firm's reports to the distribution list the Engineer provided at preconstruction conference, indicating observations and results of tests, and indicating compliance or non-compliance with Contract Documents.
D. Testing and employment of testing agency or laboratory does not relieve Contractor from performing Work to Contract requirements.
E. Retest/reinspect required because of non-conformance to specified requirements using same testing agency or laboratory. Payment for retesting is Contractor responsibility.

## 1.6 LABORATORY RESPONSIBILITIES

A. Test samples of mixes submitted by Contractor.
B. Provide qualified personnel onsite. Cooperate with Engineer and Contractor in service performance.
C. Perform specified inspection, sampling, and testing of Products per specified standards.
D. Ascertain compliance of materials and mixes with Contract Document requirements.
E. Promptly notify Engineer and Contractor of observed irregularities or non-conformance of Work or Products.
F. Perform additional inspections and tests required by Engineer.
G. Attend preconstruction conferences and progress meetings.

## 1.7 LABORATORY REPORTS

A. After each inspection and test, promptly distribute reports to distribution list provided by Engineer at preconstruction conference.
B. Include:
    1. Date issued.
    2. Project title and number.
    3. Name of inspector.
    4. Date and time of sampling or inspection.
    5. Identification of product and Specification Section.
    6. Location in Project.
    7. Type of inspection or test.
    8. Date of test.
    9. Results of tests.
    10. Conformance with Contract Documents.
C. When requested by Engineer, provide interpretation of test results.

## 1.8 LIMITS ON TESTING LABORATORY AUTHORITY

A. Laboratory may not release, revoke, alter, or enlarge Contract Document requirements.
B. Laboratory may not approve or accept any portion of Work.
C. Laboratory may not assume any duties of Contractor.
D. Laboratory has no authority to stop the Work.

1.9 CONTRACTOR RESPONSIBILITIES

A. Deliver to laboratory at designated location, adequate samples of materials proposed to use which require testing, along with proposed mix designs.
B. Cooperate with laboratory personnel and provide access to Work.
C. Provide incidental labor and facilities to provide access to Work to test, obtain, and handle samples at site or source of products to test, facilitate tests and inspections, storage, and curing test samples.
D. Notify Engineer and laboratory 24 hours before expected time for operations requiring inspection and testing services.

1.10 SCHEDULE OF INSPECTIONS AND TESTS

A. As indicated in individual Specifications.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Construction Facilities:
      a. Progress cleaning.
      b. Project identification.
      c. Traffic regulation.
      d. Temporary facilities.
   2. Temporary Controls:
      a. Barriers.
      b. Fencing.
      c. Enclosures.
      d. Security.
      e. Water control.
      f. Dust control.
      g. Erosion and sediment control.
      h. Noise control.
      i. Pest and rodent control.
      j. Pollution control.
      k. Protect Work.
   3. Remove utilities, facilities, and controls.

B. Related Requirements:
   1. Other Divisions 01 Specification Sections apply to Work of this Section.

### 1.2 WATER

A. Provide separate metering and reimburse Owner for cost of water used.
B. Provide temporary pipe insulation to prevent freezing.

### 1.3 PARKING

A. Maintenance:
   1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, mud, snow, and ice.
   2. Maintain existing and permanent paved areas used for construction. Promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.

B. Removal, Repair:
   1. Remove temporary materials and construction when permanent paving is usable at Substantial Completion.
   2. Remove underground work and compacted materials to 2-foot depth. Fill and grade site as specified.
   3. Repair existing facilities damaged by use, to specified condition.

C. Mud from Site Vehicles: Provide way to remove mud from wheels before entering streets.

1.4 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain a clean and orderly site.
B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, before enclosing space.
C. Sweep and vacuum interior areas clean before surface finishing and continue cleaning to eliminate dust.
D. Remove waste materials, debris, and rubbish from site and dispose off-site as required to maintain clean site.

1.5 PROJECT IDENTIFICATION

A. Project Identification Sign:
   1. Size: Provide one 8 feet wide by 4 feet high.
   2. Materials: 3/4-inch-thick exterior-grade plywood and solid-wood frame.
   3. Background Paint: Exterior quality, two coats; sign background of white color.
   4. Lettering: Exterior paint of quality adequate to withstand weathering, fading, and chipping for construction duration, contrasting colors with exhibit lettering by professional sign painter.
   5. Lettering: Precut vinyl self-adhesive products, white.
   6. Design: Engineer design and colors.
   7. Content:
      a. Project title, as indicated on Contract Documents.
      b. Owner's name and logo.
      c. Names and titles of Engineer and consultants.
      d. Name of Prime Contractor.
      e. Name of major subcontractors.
   8. Lettering: Series C of Standard Alphabet for Traffic Control Devices *Manual on Uniform Traffic Control Devices for Streets and Highways*, Federal Highway Administration.
B. Project Informational Signs:
   1. If required by other documents or Specifications, provide weather-protected signs for site-safety procedures, wage rates, and Stormwater Pollution Prevention Plan (SWPPP).
   2. Erect sign on or adjacent to field office, if required.
C. Design sign and structure to withstand 90-mile-per-hour wind velocity.
D. Installation:
   1. Install Project Identification Sign within 15 days after date fixed by Notice to Proceed.
   2. Erect at location directed by Owner.
   3. Erect supports and framing on secure foundation, rigidly braced, and framed to resist wind loadings.
   4. Install sign surface plumb and level with butt joints. Anchor securely.
   5. Paint exposed surfaces of sign supports and framing.
E. No other signs allowed without Owner permission except those required by law.
F. Maintain clean signs and supports. Repair deterioration and damage.
G. Remove signs, framing, supports, and foundations at completion of Project and restore area.

1.6 TRAFFIC REGULATION

A. Contractor Responsibilities:
   1. Provide Traffic Control Plan (TCP) as necessary for phased construction.
   2. TCP must be signed and sealed by a Professional Engineer licensed in Texas.
   3. Designate a responsible individual for TCP replacement and maintenance.

B. Signs, Signals, and Devices:
   1. Post- and Wall-Mounted Traffic Control and Informational Signs: As approved by Texas Manual on Uniform Traffic Control Devices (TMUTCD).
   2. Traffic Control Signals: As approved by local jurisdictions.
   3. Traffic Cones and Drums: As approved by authority having jurisdiction.
   4. Flares and Lights: As approved by authority having jurisdiction.
   5. Flagperson Equipment: As required by authority having jurisdiction.

C. Flagpersons: Provide trained and equipped flagpersons to regulate traffic when construction operations or traffic encroach on public traffic lanes.

D. Flares and Lights: Use during hours of low visibility to delineate traffic lanes and guide traffic.

E. Haul Routes:
   1. Consult with authority having jurisdiction, establish public thoroughfares to use for haul routes and site access.
   2. Confine construction traffic to designated haul routes.
   3. Provide traffic control at critical areas of haul routes to regulate traffic and minimize interference with public traffic.

F. Traffic Signs and Signals:
   1. Provide signs at approaches to site and onsite, crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
   2. Relocate as Work progresses to maintain effective traffic control.

G. Removal:
   1. Remove equipment and devices when no longer required.
   2. Repair damage caused by installation.
   3. Remove post settings to 2-foot depth.

1.7 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas as well as protect existing facilities and adjacent properties from damage from construction operations and demolition. Allow for Owner’s use of site.

B. Provide barricades and covered walkways required by authorities having jurisdiction for:
   1. Public rights-of-way.
   2. Public access to existing buildings.

C. Replace damaged items condition to original condition and protect items designated to remain:
   1. Trees.
   2. Shrubbery.
   3. Lawns.

D. Protect site improvements including but not limited to pavements, walkways, and drainage structures from damage. Replace damaged site improvements to original condition.

E. Protect non-owned vehicular traffic and stored materials from damage.

1.8 WATER CONTROL

A. Grade site to drain.
B. Maintain excavations free of water.
C. Provide, operate, and maintain pumping equipment.
D. Protect site from puddling and running water. Provide water barriers required to protect site from soil erosion.
E. Provide water barriers required to protect existing buildings from puddling, ponding, or other water accumulation that may damage foundations or other subsurface construction.

1.9 DUST CONTROL

A. Execute Work to minimize raising dust from construction operations.
B. Provide positive means to prevent airborne dust from dispersing into atmosphere.

1.10 EROSION AND SEDIMENT CONTROL

A. Plan and execute construction to control surface drainage from cuts, fills, borrow, and waste disposal areas. Prevent erosion and sedimentation.
B. Minimize surface area of bare soil exposed at one time.
C. Provide temporary measures including berms, dikes, drains, and other devices to prevent water flow resulting in erosion.
D. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.
E. Periodically inspect earthwork to detect evidence of erosion and sedimentation. Promptly apply corrective measures.
F. Comply with site Section 01 57 23 “Temporary Stormwater Pollution Control.”

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 57 23 - TEMPORARY STORMWATER POLLUTION CONTROL

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Contractor responsibilities.
   2. Submittals.
   3. Erosion and sediment controls.

B. Related Requirements:
   1. Local jurisdiction requirements.
   2. Division 01 Specification Sections apply to Work of this Section.

### 1.2 CONTRACTOR RESPONSIBILITIES

A. Contractor is solely responsible for meeting all TCEQ and EPA requirements for stormwater pollution prevention:
   1. Develop a Stormwater Pollution Prevention Plan (SWPPP) if not provided;
   2. File Notice of Intent (NOI) and include Owner as an "Operator;"
   3. Install and maintain all erosion control measures and best management practices (BMPs);
   4. Perform inspections and prepare reports; and
   5. File Notice of Termination (NOT).

### 1.3 SUBMITTALS

A. Submit to Engineer, SWPPP, Submittal Procedures, and all other related documentation conforming to Section 01 33 00 "Submittal Procedures."

### 1.4 EROSION AND SEDIMENT CONTROLS

A. Implement structural measures to divert flows from exposed soils, temporarily store flows, or otherwise limit run-off and discharge of pollutants from exposed areas of site. Timely implement structural practices as specified in SWPPP during construction to minimize erosion and sediment run-off.

B. Stabilized Ingress/Egress:
   1. Provide stabilized access to/from construction site as soon as practical per SWPPP.
   2. Ensure any soil tracked off-site is cleaned from existing roads, alleys, and any adjacent properties as soon as possible. Check for any pollutants (mud, silt, sand, cement, construction materials, etc.) tracked or washed off-site and perform necessary clean-up measures at the end of each workday.

C. Silt Fences/Diversion Berms: Provide as a temporary structural practice to minimize erosion and sediment runoff, as necessary. Properly install silt fences and/or diversion berms to effectively retain sediment immediately after completing each phase of work where erosion would occur as sheet and rill erosion (clearing and grubbing, excavation, embankment, grading, etc.).

D. Sand/Gravel Bags: Provide as a temporary structural practice to minimize erosion and sediment runoff. Properly place bags to effectively retain sediment immediately after completing each phase of Work (clearing and grubbing, excavation, embankment, grading, etc.) in each independent runoff area (after clearing and grubbing between ridge and drain, place bags as Work progresses, remove/replace/relocate bags as needed for Work to progress in drainage area). Replace sand/gravel bags no longer in good condition, as needed.

E. Site Stabilization:
   1. Minimize surface area of base soil material at one time.
   2. Implement necessary stabilization measures including:
      a. Temporary/permanent seeding/sodding.
      b. Mulching.
      c. Geotextiles.
      d. Vegetative buffer strips.
      e. Paving.
      f. Rock riprap; and/or
      g. Rock-filled gabions.
      h. Inlet protection.
   3. Implement stabilization measures per SWPPP.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 60 00 - PRODUCT REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Products.
   2. Product delivery requirements.
   3. Product storage and handling requirements.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 PRODUCTS

A. At minimum, comply with specified requirements and reference standards.

B. Specified products define standard of quality, type, function, dimension, appearance, and performance required.

C. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise. Confirm manufacturer production capacity can provide sufficient product, on time, to meet Project requirements.

### 1.3 PRODUCT DELIVERY REQUIREMENTS

A. Transport and handle products per manufacturer instructions.

B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.

C. Provide equipment and personnel to handle products. Prevent soiling, disfigurement, or damage.

D. Owner will not assist in offloading or accepting product deliveries.

### 1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

A. Store and protect products per manufacturer instructions.

B. Store products with seals and labels intact and legible.

C. Store sensitive products in weathertight, climate-controlled enclosures in an environment suitable to product.

D. For exterior storage of fabricated products, place products on sloped supports above ground.

E. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

F. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.

G. Provide equipment and personnel to store products. Prevent soiling, disfigurement, or damage.

H. Arrange product storage to permit access for inspection. Periodically inspect to verify products are undamaged and maintained in acceptable condition.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

# SECTION 01 70 00 - EXECUTION AND CLOSEOUT REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Surveying.
   2. Closeout procedures.
   3. Starting systems.
   4. Demonstration and instructions.
   5. Testing, adjusting, and balancing.
   6. Project record documents.
   7. Operation and maintenance data.
   8. Manual for materials and finishes.
   9. Manual for equipment and systems.
   10. Spare parts and maintenance products.
   11. Product warranties and product bonds.
   12. Examination.
   13. Preparation.
   14. Execution.
   15. Protecting installed construction.
   16. Final cleaning.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

### 1.2 SURVEYING

A. Employ land surveyor registered in State of Texas and acceptable to Engineer.

B. Locate and protect survey control and reference points. Promptly notify Engineer of discrepancies discovered.

C. Control datum for survey is indicated on Drawings.

D. Verify setbacks, easements, and rights of way. Confirm Drawing dimensions and elevations.

E. Provide field engineering services. Establish elevations, lines, and levels using recognized engineering survey practices.

F. Submit copy of Site Drawing signed by land surveyor certifying elevations and locations of Work are per Contract Documents.

G. Maintain complete and accurate log of control and survey Work as Work progresses.

H. Protect survey control points before starting Site Work. Preserve permanent reference points during construction.

I. Promptly report to Engineer loss or destruction of reference point or relocation required because of changes in grades or other reasons.

J. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Engineer.

1.3 CLOSEOUT PROCEDURES

A. Prerequisites to Substantial Completion. Complete following items before requesting Certification of Substantial Completion, either for entire Work or portions of Work:
   1. Submit maintenance manuals, Project record documents, and other similar final record data per this Section.
   2. Complete facility startup, testing, adjusting, balancing systems and equipment, demonstrations, and instructions to Owner's operating and maintenance personnel as specified per this Section.
   3. Conduct inspection to establish basis for request that Work is substantially complete. Create comprehensive list (initial punch list) indicating items to complete or correct, value of incomplete or nonconforming Work, reason for incompletion, and date of anticipated completion for each item. Include copy of list with request for Certificate of Substantial Completion.
   4. Obtain and submit releases enabling Owner's full, unrestricted use of Project and access to services and utilities. Include certificate of occupancy, operating certificates, and similar releases from authorities having jurisdiction and utility companies.
   5. Deliver tools, spare parts, extra stocks of material, and similar physical items to Owner.
   6. Change locks and transmit keys directly to Owner. Advise Owner's personnel of change-over in security provisions.
   7. Discontinue or change over and remove temporary facilities and services from Project Site, along with construction tools, mockups, and similar elements.
   8. Perform final cleaning per this Section.

B. Substantial Completion Inspection:
   1. When Contractor considers Work substantially complete, submit to Engineer and Owner:
      a. Written certificate that Work, or designated portion, is substantially complete.
      b. List of items to complete or correct (initial punch list).
   2. Within seven days after receipt of request for Substantial Completion, Engineer and Owner will inspect to determine if Work or designated portion is substantially complete.
   3. If Engineer and Owner determine Work is NOT substantially complete:
      a. Engineer and Owner will promptly notify Contractor in writing, stating reasons for opinion.
      b. Contractor shall remedy deficiencies in Work and send second written request for Substantial Completion to Engineer and Owner.
      c. Engineer and Owner will reinspect Work.
      d. Repeat until Work passes inspection.
   4. When Engineer and Owner finds Work is substantially complete, they will:
      a. Prepare Certificate of Substantial Completion on EJCDC C-625 - Certificate of Substantial Completion, accompanied by Contractor's list of items to complete or correct as verified and amended by Engineer and Owner (final punch list).
      b. Submit Certificate to Owner and Contractor for written acceptance of responsibilities assigned in Certificate.
   5. After Work is substantially complete:
      a. Allow Owner occupancy of Project under provisions stated in Certificate of Substantial Completion.
      b. Complete Work listed for completion or correction within time stipulated.

C. Prerequisites for Final Completion. Complete following items before requesting final acceptance and final payment:
   1. When Contractor considers Work complete, submit written certification that:
      a. Contract Documents were reviewed.
      b. Work was examined for compliance with Contract Documents.
      c. Work was completed per Contract Documents.
      d. Work is complete and ready for final inspection.
   2. Submit:
      a. Final punch list indicating all items are complete or correct.
      b. Final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations, where required.
      c. Specified warranties, workmanship/maintenance bonds, maintenance agreements, and other similar documents.
      d. Accounting statement for final changes to Contract Sum.
      e. Contractor's Affidavit of Payment of Debts and Claims on Contractor form.
      f. Contractor Affidavit of Release of Liens on Contractor form.
      g. Consent of Surety to Final Payment on Contractor form.
   3. Perform final cleaning for Contractor-soiled areas per this Section.

D. Final Completion Inspection:
   1. Within seven days after receipt of request for final inspection, Engineer and Owner will inspect to determine if Work or designated portion is complete.
   2. If Engineer and Owner consider Work incomplete or defective:
      a. Engineer and Owner will promptly notify Contractor in writing, listing incomplete or defective Work.
      b. Contractor shall remedy stated deficiencies and send second written request to Engineer and Owner that Work is complete.
      c. Engineer and Owner will reinspect Work.
      d. Redo and Inspect Deficient Work: Repeated until Work passes inspection.
      e. Engineer and Owner inspection.

## 1.4 TESTING, ADJUSTING, AND BALANCING

A. Owner will appoint, employ, and pay for services of independent firm to perform testing, adjusting, and balancing.

B. Reports will be submitted by independent firm to Engineer indicating observations and results of tests and indicating compliance or noncompliance with requirements of Contract Documents.

## 1.5 PROJECT RECORD DOCUMENTS

A. Maintain onsite, one set of these record documents and record actual revisions to Work:
   1. Drawings.
   2. Specifications.
   3. Addenda.
   4. Change Orders and other modifications to Contract.
   5. Reviewed Shop Drawings, product data, and Samples.
   6. Manufacturer's instruction for assembly, installation, and adjusting.

B. Ensure entries are complete and accurate, enabling future reference by Owner.

C. Store record documents separate from documents used for construction.

D. Record information concurrent with construction progress, not less than weekly.
E. Specifications: Legibly mark and record, at each product Section, description of actual products installed, including:
   1. Manufacturer name, product model, and number.
   2. Product substitutions or alternates used.
   3. Changes made by Addenda and modifications.
F. Record Drawings. Legibly mark each item to record actual construction as:
   1. Include Contract modifications such as Addenda, supplementary instructions, change directives, field orders, minor changes in Work, and change orders.
   2. Include locations of concealed elements of Work.
   3. Identify depth of buried utility lines and provide dimensions showing distances from permanent facility components parallel to utilities.
   4. Dimension ends, corners, and junctions of buried utilities to permanent facility components using triangulation.
   5. Identify and locate existing buried or concealed items encountered during Project.
   6. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
   7. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of Work.
   8. Field changes of dimension and detail.
   9. Details not on original Drawings.
G. Submit marked-up paper copy documents to Engineer with claim for final Application for Payment.
H. Submit PDF electronic files of marked-up documents to Engineer with claim for final Application for Payment.

## 1.6 SPARE PARTS AND MAINTENANCE PRODUCTS

A. Furnish spare parts, maintenance, and extra products in quantities specified in individual Specifications.
B. Deliver to place in location as directed by Owner. Obtain receipt before final payment.

## 1.7 PRODUCT WARRANTIES AND PRODUCT BONDS

A. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers within 10 days after completion of applicable item of Work.
B. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
C. Verify documents are in proper form, contain full information, and notarized.
D. Co-execute submittals when required.
E. Include TOC and assemble in three, D-side-ring binder with durable plastic cover.
F. Submit before final Application for Payment.
G. Time of Submittals:
   1. For equipment or component parts of equipment put into service during construction with Owner permission, submit documents within 10 days after acceptance.
   2. Make other submittals within 10 days after date of Substantial Completion before final Application for Payment.
   3. For items of Work for which acceptance is delayed beyond Substantial Completion, submit within 10 days after acceptance, listing date of acceptance as beginning of warranty or bond period.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verify existing Site conditions and substrate surfaces are acceptable for subsequent Work.
B. Beginning new Work means acceptance of existing conditions.
C. Verify existing substrate can structurally support or attach new Work applied.
D. Examine and verify specific conditions described in individual Specifications.
E. Verify utility services are available with correct characteristics and in correct locations.

3.2 PREPARATION

A. Clean substrate surfaces before applying next material or substance per manufacturer instructions.
B. Seal cracks or openings of substrate before applying next material or substance.
C. Apply manufacturer-required or -recommended substrate primer, sealer, or conditioner before applying new material or substance in contact or bond.

3.3 EXECUTION

A. Comply with manufacturer installation instructions, performing each step, in sequence. Maintain one set of manufacturer installation instructions at Project Site during installation and until completion of construction.
B. When manufacturer installation instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
C. Verify field measurements are as indicated on approved Shop Drawings or as instructed by manufacturer.
D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
    1. Secure Work true-to-line and level and within specified tolerances, or if not specified, industry-recognized tolerances.
    2. Physically separate products in place, provide electrical insulation, or provide protective coatings to prevent galvanic action or corrosion between dissimilar metals.
    3. Exposed Joints: Provide uniform joint width and arrange to obtain best visual effect. Refer questionable visual-effect choices to Engineer for final decision.
E. Allow for expansion of materials and building movement.
F. Climatic Conditions and Project Status: Install each unit of Work under conditions to ensure best possible results in coordination with entire Project.
    1. Isolate each unit of Work from incompatible Work necessary to prevent deterioration.
    2. Coordinate enclosure of Work with required inspections and tests to minimize necessity of uncovering Work for those purposes.
G. Mounting Heights: Where not indicated, mount individual units of Work at industry-recognized standard mounting heights for particular application indicated.
    1. Refer questionable mounting heights choices to Engineer for final decision.
    2. Elements Identified as Accessible to Handicapped: Comply with applicable codes and regulations.

H. Adjust operating products and equipment to ensure smooth and unhindered operation.
I. Clean and perform maintenance on installed Work as frequently as necessary through remainder of construction. Lubricate operable components recommended by manufacturer.

## 3.4 PROTECTING INSTALLED CONSTRUCTION

A. Protect installed Work and provide special protection where specified.
B. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.

## 3.5 FINAL CLEANING

A. Execute final cleaning before final Project assessment. Employ experienced personnel or professional cleaning firm.
B. Clean equipment and fixtures to sanitary condition with appropriate cleaning materials.
C. Clean site. Sweep paved areas and rake landscaped surfaces clean.
D. Remove waste and surplus materials, rubbish, and construction facilities from site.

END OF SECTION

# City Council Meeting

**Item Number:** 19

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Justine Ruff, Director

**Subject:** **MOTION AUTHORIZING THE EXECUTION OF AMENDMENT #9 TO THE PROFESSIONAL SERVICES AGREEMENT DATED MARCH 23, 2021, BETWEEN THE CITY OF MIDLAND, TEXAS, AND PARKHILL, SMITH & COOPER, INC., DBA PARKHILL; SAID AMENDMENT PROVIDING FOR (I) THE DESIGN PHASE OF THE TERMINAL MODERNIZATION AND CHECKPOINT RELOCATION PROJECT, AND (II) THE AIRFIELD SNOW REMOVAL VEHICLES AND EQUIPMENT ACQUISITION PROJECT; APPROPRIATING $2,998,600.00 FROM THE AIRPORT FUND UNAPPROPRIATED FUND BALANCE TO THE TERMINAL MODERNIZATION AND CHECKPOINT RELOCATION PROJECT (900449); AND APPROPRIATING $65,000.00 FROM THE AIRPORT FUND UNAPPROPRIATED FUND BALANCE TO THE AIRFIELD SNOW REMOVAL VEHICLES AND EQUIPMENT ACQUISITION PROJECT (DISTRICT 4) (AIRPORTS)**

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**Purpose:**

Motion authorizing the execution of Amendment #9 to the Professional Services Agreement with Parkhill and providing the Design Phase of the Terminal Modernization and Checkpoint Relocation Project and the Airfield Snow Removal Vehicles and Equipment Acquisition Project, appropriating funding to both projects.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

| | |
|---|---|
| Airport/City Share 100% - (possibly 95% grant funded in the future) | $2,998,600.00 |

**Breakout of Costs:**

| | |
|---|---|
| Schematic Design, Design Development, Construction Document and Bidding Phase | $2,949,100.00 |
| Design Phase Reimbursable Expenses, ADA Review/Inspection, Surveying and Geotechnical | $ 49,500.00 |
| **Total Recommended Design Phase Appropriation** | **$2,998,600.00** |

**Appropriation Language:**

Funding is available in the Airport Fund Unappropriated Fund Balance and is hereby appropriated and will be transferred to Project #900449 Terminal Modernization and Checkpoint Relocation Project at Midland International Air & Spaceport.

**AIRFIELD SNOW REMOVAL VEHICLES AND EQUIPMENT ACQUISITION**

**Fiscal Impact:**

Airport/City Share 100% - (90% grant funded in the future) $ 65,000.00

**Appropriation Language:**

Funding is available in the Airport Fund Unappropriated Fund Balance and is hereby appropriated and will be transferred to a project for stated purpose.

**Discussion:**

**Discussion**:

The City of Midland, Texas and Parkhill entered into an Agreement for Professional Services dated March 23, 2021, for improvements contained in the Airport's 5-year Airport Capital Improvement Program (ACIP). This is the ninth (9th) amendment to that agreement and adds the additional scope of designing the Terminal Modernization and Checkpoint Relocation Project and the Airfield Snow Removal Vehicles and Equipment Acquisition.

**TERMINAL MODERNIZATION AND CHECKPOINT RELOCATION PROJECT**

MAF has experienced considerable growth in passenger enplanements in the past two (2) years, with record enplanements in FY2023. Due to the increase in enplanements, the Transportation Security Agency (TSA) has requested that MAF provide a passenger screening/checkpoint area that can accommodate three (3) screening lanes, increasing the number of lanes from the existing two. Parkhill completed a Planning and Concept review of the existing Terminal to evaluate solutions to increasing the passenger screening/checkpoint to accommodate the new TSA criteria for three (3) screening lanes. The original Terminal screening/checkpoint area was designed based on pre-9/11 security measures and does not meet the post-9/11 TSA requirements with the current and projected number of passenger enplanements.

Based on meetings between Airport staff and Parkhill, the solution identified was to expand the Lobby Level of the Terminal to the south and relocate the passenger screening/checkpoint area

to the Lobby Level, just south of airline ticketing. Upon clearing the screening area on the Lobby Level, passengers would then access the upper Concourse Level using escalators and an elevator. This configuration would allow passenger queuing prior to entering the screening/checkpoint area to be located on the Lobby Level of the Terminal, eliminating the potential for passengers backing up on the escalators in the queuing lanes. The new TSA screening area will be sized to allow future expansion to four (4) screening lanes. The existing passenger screening/checkpoint area will be modified to be passenger exit only from the Concourse Level.

As part of this project, the Terminal will be modernized to include replacement of 36-year-old boilers (building heating), 24-year-old chillers (building cooling) and replace existing non-LED light fixtures with modern LED light fixtures. This modernization is to improve the energy efficiency of the Terminal Building.

Initially, the funding for design will be 100% Airport funds; however, MAF has submitted an Airport Terminal Program (ATP) Grant Application for funding a portion of the Design/Bidding Phase. If awarded, the amount of the Grant for MAF would be 95% of the Design/Bidding Phase. It is anticipated that the FAA will determine if MAF will receive an ATP Grant and the amount of the grant in February 2024.

**AIRFIELD SNOW REMOVAL VEHICLES AND EQUIPMENT ACQUISITION**

MAF is required by the Federal Aviation Administration (FAA) to have a Snow and Ice Control Plan. To comply with the plan, MAF requires snow removal vehicles and associated equipment to maintain the designated “Priority 1” runway, taxiways and aprons to a “no worse than wet” condition during winter conditions. This requires vehicles and equipment that include snowplows, snow brooms, snow blowers and de-icing agent applicators.

MAF’s current snow and ice control vehicles and equipment are of the age that the equipment is beyond its useful life and obtaining parts has become an issue. In addition to the age of the equipment, the FAA recently issued new and updated requirements for the snow and ice removal equipment that requires changes in the capabilities of the equipment to remove snow in the required amount of time. This project will acquire snow removal vehicles and the associated equipment to meet the FAA requirements of the Airport’s Snow and Ice Control Plan.

Parkhill will assist the MAF staff in the preparation of Bid Documents that meet the FAA criteria for new Airfield Snow Removal Vehicles and Equipment Acquisition. Parkhill will prepare the bid documents, provide bidding phase services, review bid results with MAF and FAA and prepare the Contract Documents.

Initially, the funding for this project will be 100% Airport Funds, at an hourly rate, not to exceed $65,000. The cost of this project is scheduled to be funded 90% by FAA using the upcoming FAA FY2024 Airport Improvement Program (AIP) funds.

**AMENDMENT NO. 9**
**TO**
**AGREEMENT**

**BETWEEN THE CITY OF MIDLAND, TEXAS**
**AND**
**PARKHILL**
**FOR**
**PROFESSIONAL SERVICES**

WHEREAS, the City of Midland, Texas and Parkhill have entered into an Agreement for professional services dated March 23, 2021, for improvements contained in the Airport Capital Improvement Program; as amended April 13, 2021 (Amendment 1), February 8, 2022 (Amendment 2), April 12, 2022 (Amendment 3), June 28, 2022 (Amendment 4), October 11, 2022 (Amendment 5), April 11, 2023 (Amendment 6), June 13, 2023 (Amendment 7), and September 23, 2023 (Amendment 8);

AND WHEREAS, the City of Midland, Texas desires to perform the improvements listed in the Recitals of the Agreement as Item 3 Airfield Snow Removal Vehicles and Equipment Acquisition and Item 22 MAF Terminal Modernization and Checkpoint Relocation:

THIS AGREEMENT WITNESSETH:

A. The Recitals of the Agreement shall be amended to include the following items:

22. MAF Terminal Modernization and Checkpoint Relocation

B. Exhibit B, Article 4 – PAYMENTS TO THE ENGINEER, the following shall be added to paragraph B 4.01:

**"Item 22 MAF Terminal Modernization and Checkpoint Relocation**

A Lump Sum amount of $2,949,100 for the following Design Services:

Schematic Design Phase
Design Development Phase
Construction Document Phase
Bidding Phase

* Scope of Professional Services Attached"

C. Exhibit B, Article 4 – PAYMENTS TO THE ENGINEER, the following shall be added to paragraph B 4.02:

**"Item 3 Airfield Snow Removal Vehicles and Equipment Acquisition**

Additional Services under Item 3 of the Recitals on Page 1 shall be compensated at the Standard Hourly Rates Method of Payment plus Direct Expenses and Engineer's Consultant's charges on the basis of cost times a factor of 1.15.

Total additional compensation for Item 3 under this Amendment for the Bid Document Preparation, Bidding and Construction/Production Phases shall not exceed $65,000 without written authorization from the Owner

* Scope of Professional Services Attached"

**"Item 22 MAF Terminal Modernization and Checkpoint Relocation**

Additional Services under Item 22 of the Recitals on Page 1 shall be compensated at the Standard Hourly Rates Method of Payment plus Direct Expenses and Engineer's Consultant's charges on the basis of cost times a factor of 1.15.

a. Design Phase Reimbursable Expenses,
ADA Review/Inspection, Surveying and Geotechnical $49,500"

IN WITNESS WHEREOF, the City of Midland, Texas and Parkhill have hereto set their hands this 14th day of November, 2023.

| OWNER: | ENGINEER: |
|---|---|
| CITY OF MIDLAND, TEXAS | PARKHILL |
| By: Lori Blong | By: Danny G. Winchester |
| Title: Mayor | Title: Principal |
| Date Signed: | Date Signed: November 14, 2023 |
| Address for giving notices: | Address for giving notices: |
| P.O. Box 1152<br>Midland, Texas 79702<br>Phone: (432) 685-7357 | 1700 W. Wall<br>Midland, Texas 79701<br>Phone: (432) 697-1447 |

IN DUPLICATE

## Item 22 MAF Terminal Modernization and Checkpoint Relocation

**DESIGN SERVICES**
Parkhill proposes to provide the following Professional Architecture and Engineering Services for the Project's Scope of Services.

**TASK 1 | DESIGN SERVICES**

**A. SCHEMATIC DESIGN**

The Schematic Design Documents will include the design for the total build out of the Project based on the Conceptual Design Package previously prepared by Parkhill dated 9/19/2023. Parkhill's Architectural Plans will be prepared using Autodesk Revit (BIM Software). Parkhill will develop the Concept Design into a refined document and provide supporting documents illustrating the architectural style of the façade and floor plan.

Deliverables:

- Floor Plan
- Site Plan
- Elevations & Massing Study
- Opinion of Probable Cost
- Preliminary Structural Layout & Methodology

During the Schematic Design, Parkhill will prepare exhibits and project scope of improvements for submission to the FAA for an Environmental Determination for the proposed improvements. The level of environmental services to be provided is based on a simple Categorical Exclusion (CATEX). If FAA requests a more detailed environmental impact assessment than the simple CATEX, Parkhill will negotiate these additional services and fees with MAF.

**B. DESIGN DEVELOPMENT SERVICES**

Parkhill will provide Design Development Documents based on approved Schematic Design Documents and updated Project Budget. The documents will illustrate and describe refinement of the design of the Project establishing the Scope, relationships, forms, size, and appearance of the Project by means of plans, elevations and sections, typical construction details, and equipment layouts. The documents will identify major systems and materials and, in general, their quality levels.

Deliverables:

- Code Sheets
- Floor and Roof Plans
- Site Plan
- Interior and Exterior Elevations
- Millwork Elevations and Details
- Details and Sections
- Door/Window/Storefront/Accessory Schedules
- Finish Schedule
- Outline Specifications
- Updated Opinion of Probable Cost
- MEP System Plans

**C. CONSTRUCTION DOCUMENT SERVICES**

Parkhill will provide Construction Documents based on approved Design Development Documents and an updated Project Budget. The Construction Documents will be based on the use of AIA A201-2017 General Conditions of the Contract for Construction and will include requirements for construction, drawings and specifications that establish, in detail, the quality

level of systems and materials. Parkhill will utilize CLIENT's Contract Documents and General Conditions in the preparation of the Bid Document/Project Manual.

Deliverables:

- Complete Bid Package Including Drawings and Project Manual
- Updated Opinion of Probable Cost

**D. BIDDING**

Parkhill will assist CLIENT with the Bidding Phase of the project. Parkhill will facilitate a Pre-Bid meeting, respond to bidder questions during the Bid Phase and assist the CLIENT in the opening of bids received. Parkhill will review the bids received for responsiveness to the requirements of the Bid Document and provide this information to the CLIENT. Parkhill will prepare Contract Documents based on the successful bidder.

**E. CIVIL ENGINEERING**

Architect to provide on-site development services including sidewalks, drainage and vehicle circulation modifications resulting from the expansion of the Terminal Building onto existing infrastructure. Supplemental Services plus reimbursable expenses shall include extension of off-site utilities and/or roads, if any.

**F. LANDSCAPE DESIGN**

Architect to provide planting and irrigation design services, as well as, connections to existing flatwork within Project Boundary.

**G. FURNITURE, FIXTURES & EQUIPMENT**

Services include assisting in selections relating to moveable furniture, fixtures and equipment. These tasks may include:

- Evaluation FF&E Needs
- Develop FF&E Budgets
- Showroom Tours
- Product Selection
- Evaluate Procurement Method
- Develop Bid/Purchase Specification Binder
- Coordinate installation & Review installed product

**H. AUDIO/VIDEO DESIGN**

Audio/Video infrastructure and active equipment design for presentation and meeting spaces to include:

- A/V design to include infrastructure to support AV spaces and any ADA required audio systems.
- Evaluation of relevant AV active equipment to determine the infrastructure needs of the presentation spaces, specifications and drawings associated with the AV infrastructure system.
- Develop A/V room layouts and assist with power requirements, screen locations, conduit, floor boxes and speaker locations.

**I. IT/DATA/SECURITY DESIGN**

Information Transport Systems infrastructure design services may include:

- Technology infrastructure design to support voice and date.
- Main MDF/Server Room layout, design and power/cooling coordination.
- Telecom Rooms design, layout and connectivity.
- Infrastructure design to support wireless access connectivity throughout building.

Electronic Security systems design may include:

- Access Control

- Intrusion Detection
- Electronic Surveillance
- Emergency Notification and Duress

## TASK 2 | (FUTURE) CONSTRUCTION ADMINISTRATION SERVICES

**A. CONSTRUCTION ADMINISTRATION SERVICES**
Following completion of the design portion of the project, Parkhill will negotiate Construction Administration services and fees with MAF.

## EXCLUDED SERVICES

Services specifically excluded from our Scope of Services include, but are not limited to, the following:

- Off-site Utility Design
- Asbestos and Hazardous Materials Studies
- Full-time Construction Observation Services (Part of Future Task 2)
- Preparation of Construction Documents for more than one bid package
- Phased Construction
- Fast-track Construction
- Construction Material Testing (Part of Future Task 2)
- Texas Department of Health Demolition Notification
- Commissioning and Special Inspections
- Traffic Impact Analysis
- Environmental Impact Studies beyond simple FAA Categorical Exclusion

**END OF SCOPE OF SERVICES**

**Item 3 Airfield Snow Removal Vehicles and Equipment Acquisition**

SCOPE OF PROFESSIONAL SERVICES: Parkhill will assist the MAF staff in the preparation of Bid Documents that meet the Federal Aviation Administration (FAA) criteria for new Airfield Snow Removal Vehicles and Equipment Acquisition for MAF. Parkhill, utilizing the equipment specifications, quantities and type of equipment determined and obtained by the MAF staff, will coordinate with the FAA Regional Office and FAA Program Manager in obtaining FAA approval of the specifications prior to bidding. Parkhill will prepare bid documents which will include the FAA Mandatory Contract Provisions required for equipment acquisition to be used for bidding the new Airfield Snow Removal Equipment. Parkhill will provide bidding phase services to respond to questions during bidding, review bid results with MAF and FAA and prepare Contract Documents based on the successful bidder. Parkhill along with MAF staff will review submittal data prior to release of production of the Airfield Snow Removal Equipment. Parkhill will prepare monthly FAA Grant Draws during the project.

If it is determined that a sub-consultant is necessary to be retained by Parkhill that can work with MAF staff to identify the specific type and quantity of equipment necessary that meets MAF operational needs and capability, a subsequent Amendment will be prepared.

# City Council Meeting

**Item Number:** 20

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Justine Ruff, Director

**Subject:** MOTION AUTHORIZING THE EXECUTION OF A SECOND AMENDMENT TO THAT CERTAIN NON-EXCLUSIVE COMMERCIAL FIXED BASE OPERATOR LEASE AGREEMENT DATED MARCH 29, 2023, BETWEEN THE CITY OF MIDLAND, TEXAS, AND FRANKLIN MOUNTAIN AVIATION MAF, LLC; SAID AMENDMENT PROVIDING FOR AN EXTENSION OF THE DUE DILIGENCE EXPIRATION DATE FROM NOVEMBER 24, 2023, TO FEBRUARY 22, 2024 (DISTRICT 4) (AIRPORTS)

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**Purpose:**

Motion authorizing Amendment #2 to the Non-Exclusive Commercial Fixed Base Operator Lease Agreement Between the City of Midland, Texas and Franklin Mountain Aviation MAF, LLC dated March 29, 2023.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

n/a

**Discussion:**

On March 29, 2023, the City of Midland entered into a Non-Exclusive Commercial Fixed Base Operator Lease Agreement with Franklin Mountain Aviation MAF, LLC for leased premises at MAF for the operation of a second FBO. The original agreement allowed for a 120-day due diligence period, which was expanded to 240 days with Amendment #1 to said agreement and will expire on November 24, 2023. Franklin Mountain Aviation MAF has been working with the City on an amendment to the agreement that addresses what was discovered during due diligence, but that amendment was not ready by the agenda deadline for this Council session.

Franklin Mountain has, therefore, requested a 90-day extension to the due diligence period with the thought that the new Amendment #3 will be completed long before the 90 days expires.



City Manager's Office

**SECOND AMENDMENT TO NON-EXCLUSIVE COMMERCIAL FIXED BASE OPERATOR LEASE AGREEMENT BETWEEN THE CITY OF MIDLAND, TEXAS AND FRANKLIN MOUNTAIN AVIATION MAF, LLC**

This Second Amendment to Non-Exclusive Commercial Fixed Base Operator Lease Agreement **("Second Amendment")** is made to be effective the 23rd day of November, 2023 (the **"Second Amendment Effective Date"**) between City of Midland, Texas, a home rule municipal corporation, (hereinafter **"City" or "Lessor"**) and Franklin Mountain Aviation MAF, LLC, a Texas limited liability company (hereinafter **"Lessee"**), and does hereby amend the Non-Exclusive Commercial Fixed Base Operator Lease Agreement with an "**Effective Date**") of March 29, 2023 (the **"Original Lease"**); which has been previously amended by First Amendment to Non-Exclusive Commercial Fixed Base Operator Lease Agreement between the City of Midland, Texas and Franklin Mountain Aviation MAF, LLC dated effective July 26, 2023 (the **"First Amendment"**).

**RECITALS**

A. The Original Lease, First Amendment and any additional amendments are collectively the **"Lease"**.

B. Lessor and Lessee wish to amend the Lease in order to extend the Due Diligence Period to February 22, 2024.

**AGREEMENT**

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Lessor and Lessee agree as follows:

1. **Amendment Sections.**

A. **Due Diligence Period**. The first sentence under Section 1.04 shall be deleted in its entirety and replaced with the following:

"The "**Due Diligence Period**" shall mean and refer to the period of time commencing on the Effective Date and ending February 22, 2024."

2. **Other Time Periods.** All other time periods contained in the Lease which are tied to or related to the Due Diligence Period will be calculated based upon the new Due Diligence Period referenced in this Second Amendment.

3. **Recitals**. The recitals set forth above are not mere recitals of fact but are incorporated into this Second Amendment by reference, except in the event of a conflict between the incorporated recitals and the numbered sections of this Second Amendment.

4. **Successors and Assigns**. The terms of this Second Amendment will be binding upon and inure to the benefit of the successors and assigns of Lessor and Lessee.

5. **Capitalized Terms.** All initial capitalized terms used in this Second Amendment are intended to have the same meaning as such initial capitalized terms used in the Lease and vice versa.

6. **Remainder of Lease Unaffected.** Except as expressly amended hereby, the remainder of the Lease shall be unaffected, and the obligations and rights of the Lessor and Lessee under the Lease will remain as provided therein.

7. **Approval and Ratification by City**. This Second Amendment will be subject to any required approval and / or ratification by the City, to give effect to this Second Amendment ("**City Approval**"). Execution of this Second Amendment by Lessee, with or without the joinder of the City and without receiving any City Approval is delivery of the Due Diligence Termination Notice by Lessee as of November 23, 2023; subject to receiving any required City Approval giving effect to this Second Amendment. If the City executes this Second Amendment and obtains any City Approval within thirty (30) days after the Second Amendment Effective Date, the Due Diligence Termination Notice will be deemed retroactively withdrawn by Lessee without further action from Lessee. Once the City receives City Approval, City will notify Lessee in writing.

8. **ESIGN.** This Second Amendment may be executed in counterparts, and it is not necessary that signatures of each party appear on the same counterpart, but such counterparts together will constitute a single binding agreement by and between the parties. Counterparts may be executed by hand or by any electronic signature complying the U.S. federal ESIGN Act of 2000, as amended (the "***ESIGN Act***"). Executed counterparts may be delivered via facsimile, electronic mail or other similar transmission method, and any executed counterpart so delivered shall be valid and effective for all purposes. No party shall raise the use of any electronic signature that complies with the ESIGN Act (including www.docusign.com), or the use of a facsimile machine, electronic mail or other similar transmission method as a means to deliver a signature to this Second Amendment or any amendment hereto as a defense to the formation or enforceability of a contract and each party forever waives any such defense.

[Signature pages follow]

IN WITNESS WHEREOF, Lessor and Lessee have signed this Second Amendment to be effective as of the day and year first above written.

LESSEE**:**

**THE CITY OF MIDLAND, TEXAS**

By: _____
Lori Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

[Lessee signature on following page]

LESSEE:

**FRANKLIN MOUNTAIN AVIATION MAF, LLC,**
a Texas limited liability company

By: _____
William Kell, Chief Operating Officer

# City Council Meeting

**Item Number:** 21

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Justine Ruff, Director

**Subject:** **MOTION APPROVING PLANS AND SPECIFICATIONS FOR THE MIDLAND AIRPARK NORTH FENCE REPLACEMENT PROJECT, SAID PLANS AND SPECIFICATIONS BEING ON FILE IN THE CITY SECRETARY'S OFFICE REFERENCED BY THE NUMBER AND DATE OF THIS MOTION, AND AUTHORIZING THE CITY MANAGER OR THE CITY MANAGER'S DESIGNEE TO ADVERTISE FOR COMPETITIVE BIDS FOR SAID PROJECT PURSUANT TO THE STATUTES OF THE STATE OF TEXAS FOR ACCOMPLISHING THE WORK SET FORTH IN SAID PLANS AND SPECIFICATIONS (DISTRICT 4) (AIRPORTS)**

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**Purpose:**

Motion approving the plans and specifications for the Midland Airpark North Fence Replacement Project, said plans and specifications being on file in the City Secretary's office referenced by the number and date of this Motion, and to authorize the City Manager or the City Manager's designee to advertise for competitive bids for said project pursuant to the statues of the State of Texas for accomplishing the work set forth in said plans and specifications.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

To be Determined

**Discussion:**

The Airpark North Fence Project was included in Amendment #4 to the 2021 Professional Services Agreement with Parkhill, Smith & Cooper. This project addresses the replacement of the existing chain link fence located along the north side of Midland Airpark adjacent to Loop

250 and adjacent to Garfield Street. The anticipated fence material is a coated woven wire fabric which provides an enhanced visual appearance to the view from Loop 250 and Garfield Street. The length of the fence is approximately 8,000 linear feet. A concrete mow strip will be placed beneath the fence line to reduce vegetation growth within the fence fabric. This project will be funded by the Airport Operating Fund.



City Manager's Office

Parkhill

PROJECT MANUAL

# MIDLAND AIRPARK (MDD)

## North Fence Replacement

## Midland, Texas

Midland Airpark

November | 2023

Parkhill Project #01618422

Parkhill

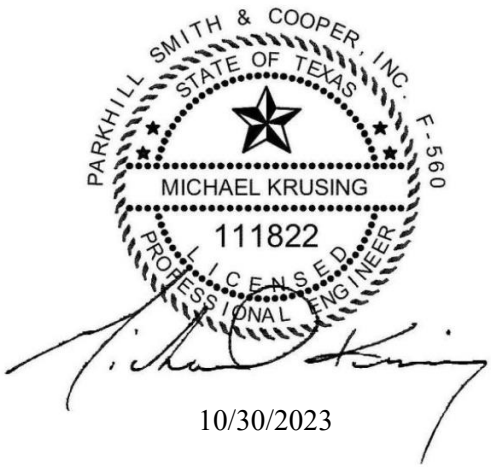
PROJECT MANUAL

# MIDLAND AIRPARK (MDD)

## North Fence Replacement

## Midland, Texas

Midland Airpark




November | 2023

Parkhill Project #01618422

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**ADVERTISEMENT FOR BIDS**
NOTICE TO BIDDERS

Sealed proposals addressed to the City Secretary will be received at the office of the City Secretary, City Hall, Midland, Texas until 2:00 PM, Thursday, December 21, 2023, for furnishing all necessary materials, machinery, equipment, superintendence, and labor for constructing certain improvements at Midland Airpark (MDD), Midland, Texas. These improvements are contained in Plans and Specifications entitled, "Midland Airpark, North Fence Replacement Project," dated November 2023.

Immediately following the closing time for receipt of Bids/Proposals will be publicly opened and read aloud. Any Bid received after closing time will be returned unopened.

Principal items of Work are set forth in specific detail in the Proposal Section of these Specifications; however, Work items may be generally described as the removal of existing chain link fence and installation of specified fence, gates, concrete strip, and grading.

Work will also include other miscellaneous materials, equipment, machinery, superintendence, and labor for constructing these improvements for MDD, Midland, Texas.

A Bid Proposal guaranty is to accompany the Bid, thereby guaranteeing the good faith of the Bidder and that Bidder will enter the written contract. The guaranty is to amount to 5 percent of the total bid and must be in the form of cash or certified check, issued by a bank satisfactory to the City of Midland, or a bid bond.

Bidders are expected to inspect site of work and inform themselves regarding all local conditions.

Information for Bidders, Proposal forms, Specifications, and Plans are on file in the office of the Director of Airport, MAF/MDD.

Downloaded documents (PDF file extension format) can be obtained from the PSC Info Exchange web site after registering as a plan holder with Parkhill via https://parkhill.com/projects-for-bid/ or by contacting Debbie German, Project Coordinator, at dagerman@parkhill.com. No cost or deposit required for downloaded documents.

CITY OF MIDLAND, TEXAS
Marcia Bentley-German, City Secretary

## INSTRUCTIONS TO BIDDERS

IB-1. BID FORMS

Bid shall be submitted on Proposal form in the bound Specifications.

In addition to the completed Proposals, bid forms shall include Bid Security, Financial Statement, and other specified documents. Failure to submit a complete Bid as specified will be considered as sufficient cause for rejection of the Bid.

IB-2. PREPARATION OF PROPOSALS

All blanks in the forms shall be filled in or marked "N.A." (Not Applicable) and all required information shall be included with Proposals. Bid prices shall be written in ink. Receipt of all addenda issued shall be acknowledged in the space provided on the addendum. Each addendum received and the Bid Security shall be enclosed with Proposal. Proposal and accompanying documents shall be enclosed in a sealed envelope, addressed to the City Secretary, 300 N. Loraine, Midland, Texas 79701, marked "MDD, North Fence Replacement Project" with name and address of Bidder also shown thereon. **If Sealed Bid is sent in a mailing envelope, outside of mailing envelope must also have same marking visible.**

IB-3. EXPERIENCE RECORD AND FINANCIAL STATEMENT

Experience Record included herein, shall be filled in, showing completed jobs, of a similar nature to the one covered by Proposal, and work in progress with contract and bond amounts and percent complete.

A sworn statement of the current financial condition of Bidder shall also be enclosed with Proposal, to provide Owner with information relative to the responsibility of bidders and their ability to finance and construct the work. This statement shall be enclosed with Proposal in a separate envelope and will be returned to Bidder upon return of his bid security.

TxDOT prequalification can be submitted in lieu of a financial statement with bids; however, financial information may be required of the apparent low Bidder.

IB-4. BID SECURITY

Each proposal must be accompanied by a Bid Bond, Certified Check, or cash in the amount of not less than 5 percent of the maximum bid submitted, payable without recourse to the City of Midland, Texas. If a Bid Bond is submitted as bid security, it shall be executed by an approved surety company authorized to do business in the State of Texas and accepted according to the latest list of companies holding certificates of authority from the Secretary of the Treasury of the United States of America. Such bid security shall be so conditioned if Bidder is awarded Contract and unable or fails to furnish performance and payment bonds and execute Contract within 10 days after date of award, security shall revert to Owner as compensation for damages which Owner suffers because of such failure by Bidder.

IB-5. PERFORMANCE AND PAYMENT BONDS

With execution and delivery of the contract documents, Contractor shall furnish, on the forms provided herein, bonds, as required by the General Conditions, of 100 percent of the total contract price, executed by an approved surety company authorized to do business in the State of Texas, and accepted according to the latest list of companies holding certificates of authority from the Secretary of the Treasury of the United States of America. Performance and Payment Bonds submitted shall be in compliance with Chapter 2253 of the Texas Government Code.

IB-6. INTERPRETATION OF BIDS

No bid will be considered which fails to supply all information indicated, or which has any limitation or provisions placed upon it by Bidder. In case of a difference between the written words and the figures in Proposal, amount stated in written words will be considered as bid price, without recourse on the part of Contractor. In case of ambiguity or lack of clearness in Proposal, Owner will adopt the most advantageous construction thereof or reject the bid. Owner reserves the right to accept or reject any or all bids, if it is deemed to be in the best interest of the public. Further, Owner reserves the right to reject any bids because of irregularity or to waive such irregularity if such action is in the public interest.

IB-7. DISPOSITION OF BIDS

Owner expects to make award of the contracts as soon as possible after the opening of bids, but specifically reserves the right to hold all Proposals for a period not to exceed 90 days, before making an award. No Proposal, having been opened, may be withdrawn prior to expiration of this 90-day period. Bid security of all but the successful Bidder will be returned upon making an award.

Contract will be awarded to the responsible bidder submitting the lowest bid complying with the conditions of the Advertisement for Bidders and the Instructions to Bidders.

IB-8. EXAMINATION OF SITE, PLANS, AND SPECIFICATIONS

Before submitting Proposal, each Bidder shall have made a thorough examination of the site of work and of the plans and specifications, and shall become informed as to the location and nature of the proposed construction, labor conditions and all other matters that may affect the cost and time of completion of the work upon which he bids. Bidders shall make such investigations of the nature of the project as deemed necessary and shall assume all responsibility for fully informing themselves of the character of materials which will be encountered. Submission of a Proposal shall be prima facie evidence that Bidder has made such an examination. Contact Aaron Easton, Deputy Director of Airports, 432.560.2200, to schedule a site examination visit.

IB-9. PREBID CONFERENCE

A prebid conference will be held at 2:00 PM, Tuesday, November 28, 2023, at the MDD Terminal Building. At this time, all interested bidders will be requested to appear and present any questions they may have pertaining to this project. All bidders are urged to attend prebid conference because they will be charged with notice of the matters discussed therein. Attendance to the prebid conference is NOT mandatory.

IB-10. INTERPRETATION OF SPECIFICATIONS PRIOR TO BIDDING

Any questions arising during the advertising period as to the meaning or intent of the specifications will be answered by an addendum which will be sent to all who have placed a deposit and/or furnished plans and Contract documents issued by Parkhill. Engineer shall receive requests for clarifications to specifications and plans at least three days prior to the date for receipt of bids.

Receipt of each addendum shall be acknowledged by Bidder in the space provided and each addendum shall be enclosed with Proposal when it is submitted. All addenda shall become a part of these contract documents.

IB-11. AVAILABILITY OF PLANS

A. For Bidders

All parties with an interest in the type of work included in the project covered by these documents, shall be given a reasonable opportunity to examine the documents and prepare a bid or sub-bid. Documents may be examined without charge as noted in the Notice to Bidders.

Downloadable documents (PDF file extension format) can be obtained from the PSC Info Exchange web site after registering as a plan holder with Parkhill via https://parkhill.com/projects-for-bid/ or through Debbie German, Project Coordinator, at dagerman@parkhill.com. No cost or deposit required for downloaded documents.

B. For Contractor

Contractor will be furnished five sets of specifications and plans for his use during construction. This shall include all plans and specifications furnished to material suppliers and subcontractors but does not include the executed contract copies. Plans and specifications for use during construction will be furnished directly only to Contractor. Contractor shall then distribute copies of plans and specifications to suppliers, subcontractors, or others, as required for proper execution of the work.

Should additional sets of documents be desired, they may be purchased, by Contractor only, at the following prices, exclusive of postage or freight charges:

Plans and Specifications are $150.00 per set.

IB-12. SPECIAL PROVISIONS

Attention of Bidders is directed to SPECIAL PROVISIONS included in these documents for requirements concerning scope of work, labor, insurance, and similar subjects.

IB-13. PLANT LOCATION AND STORAGE AREA

Contractors bidding on the work included in this contract who desire to locate a material storage area or other similar facility on the airport property may secure such site, buildings or areas by direct negotiation with the Director of Airport, MAF/MDD, Midland, Texas. An area located adjacent to the Project area will be identified as available for use by Contractor for staging and material storage.

IB-14. WITHDRAWAL OF PROPOSALS

Any Bidder, upon his or his authorized representative's written request, will be given permission to withdraw his Proposal not later than the time set for opening thereof. At the time of opening of Proposals, when such Proposal is reached, it will be returned to him unread.

IB-15. DISQUALIFICATION OF BIDDERS

Any one or more of the following causes may be considered as sufficient for the disqualification of bidder and the rejection of his bid or bids:

More than one Proposal for the same work from an individual firm, partnership, or corporation under the same or different name.

Evidence of collusion among bidders. Participants in such collusion may not receive recognition as Bidders for any future work.

Unbalanced Proposals in which the prices for some items are out of proportion to the prices for other items.

Failure to submit a unit price for each item of work for which a bid price is required by Proposal.

Lack of competency as revealed by the financial statement submitted.

Lack of responsibility as shown by past work judged from workmanship and progress standpoints.

Uncompleted work which, in the judgment of Owner, might hinder or prevent the prompt completion of additional work if awarded.

For being in arrears on existing contracts, in litigation with Owner, or having defaulted on a previous contract.

IB-16. MATERIAL GUARANTY

Before any contract is awarded, Bidder may be required to furnish a complete statement of origin, composition, or manufacture of any or all materials proposed to be used in the construction of the work, together with samples, which may be subjected to the tests provided for in these specifications to determine their quality and fitness for the work.

IB-18. WAIVER

BY SUBMITTING A BID, EACH BIDDER AGREES TO AND DOES HEREBY WAIVE ANY CLAIM BIDDER HAS OR MAY HAVE AGAINST THE CITY OF MIDLAND, TEXAS, AND CITY EMPLOYEES, AGENTS, AND OFFICERS ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE FOLLOWING:

1. ADMINISTRATION, EVALUATION, OR RECOMMENDATION OF ANY BID;
2. WAIVER OR DELETION OF ANY REQUIREMENT UNDER BID DOCUMENTS OR CONTRACT DOCUMENTS;
3. ACCEPTANCE OR REJECTION OF ANY BIDS; AND
4. AWARD OF CONTRACT.

BY SUBMITTING A BID, BIDDER ACKNOWLEDGES AN UNDERSTANDING OF ALL BIDDING DOCUMENT TERMS AND CONSENTS TO BIDDING PROCESS AND THE POSSIBILITY OF A NEGATIVE ASSESSMENT. BY SUBMITTING A BID, BIDDER ACKNOWLEDGES AND AGREES THAT THERE WAS/IS NO DISPARITY OF BARGAINING POWER BETWEEN BIDDER AND THE CITY OF MIDLAND, TEXAS.

BIDDER AGREES THIS IS THE INTENTIONAL RELINQUISHMENT OF THE LISTED PRESENTLY EXISTING KNOWN RIGHTS.

IB-19. WAIVER OF ATTORNEY FEES

BY EXECUTING THIS CONTRACT, CONTRACTOR AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS/MAY HAVE IN THE FUTURE AGAINST OWNER, REGARDING AWARD OF ATTORNEY FEES, WHICH ARE IN ANY WAY RELATED TO CONTRACT, OR CONSTRUCTION, INTERPRETATION OR BREACH OF CONTRACT. CONTRACTOR SPECIFICALLY AGREES IF CONTRACTOR BRINGS/COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS CONTRACT, CONSTRUCTION, INTERPRETATION, VALIDITY, OR BREACH OF CONTRACT, INCLUDING BUT NOT LIMITED TO ANY ACTION PURSUANT TO PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET. SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, CONTRACTOR AGREES TO ABANDON, WAIVE, AND RELINQUISH ANY AND ALL RIGHTS TO RECOVERY OF ATTORNEY FEES TO WHICH CONTRACTOR MIGHT OTHERWISE BE ENTITLED.

CONTRACTOR AGREES THIS IS VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY EXISTING KNOWN RIGHT. CONTRACTOR ACKNOWLEDGES AN UNDERSTANDING OF ALL TERMS AND CONDITIONS OF CONTRACT. CONTRACTOR FURTHER ACKNOWLEDGES AND AGREES THAT WAS/IS NO DISPARITY OF BARGAINING POWER BETWEEN OWNER AND CONTRACTOR.

THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.

CONTRACTOR AND OWNER ARE RELYING ON THEIR OWN JUDGMENT. EACH PARTY HAD THE OPPORTUNITY TO DISCUSS THIS CONTRACT WITH COMPETENT LEGAL COUNSEL PRIOR TO ITS EXECUTION.

**BID BOND**

THE STATE OF TEXAS )

SURETY'S NO._____

COUNTY OF MIDLAND )

KNOWN ALL MEN BY THESE PRESENTS, THAT_____

_____(hereinafter called "Principal"), as Principal, and_____

_____ (hereinafter called "Surety"), as Surety, are held and firmly bound unto the City of Midland, a home rule municipal corporation of Midland County (hereinafter called "Obligee"), in the amount of_____

_____DOLLARS ($____), for payment whereof said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal submitted a Bid or Proposal to enter a certain written contract with Obligee to perform all work associated with the MDD, North Fence Replacement Project.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, if said Principal shall faithfully, enter such written Contract, then this obligation shall be void; otherwise to remain in full force and effect.

IT IS EXPRESSLY UNDERSTOOD AND AGREED if said Principal should withdraw its Bid any time after such Bid is opened and before official rejection of such Bid or, if successful in securing the award thereof, said Principal should fail to enter into the Contract and furnish satisfactory Performance Bond and Payment Bond, Obligee, in either of such events, shall be entitled and hereby given the right to collect this Bid Bond as liquidated damages.

PROVIDED further if any legal action be filed upon this Bond venue shall lie in Midland County, Texas.

IN WITNESS WHEREOF, the said Principal and Surety do sign and seal this instrument, this day of _____, 20___.

| | |
|---|---|
| _____ | _____ |
| Surety | |
| By _____ | By _____ |
| Address _____ | Address _____ |
| _____ | _____ |

APPROVED AS TO FORM:

_____
City Attorney

NOTE: Attach Power of Attorney

**PROPOSAL**

TO: The Mayor and City Council
City of Midland
Midland, Texas

Date: _____

Gentlemen:

Pursuant to foregoing Notice to Bidders, undersigned Bidder hereby proposes to do all work and furnish all necessary superintendence, labor, machinery, equipment, tools, and materials, and anything necessary to complete all work bid, as provided by attached Specifications and shown on Plans, and is bound to acceptance of this Proposal to execute Contract and Bonds per accompanying forms, performing and completing work within time stated, and furnishing all required guarantees, for the following prices to-wit:

NORTH FENCE REPLACEMENT

| Item | Quantity Unit | Description of Item and Unit Prices | Total Amount |
|---|---|---|---|
| 1 | 1 LS | Contractor Mobilization, complete, per lump sum: _____Dollars and _____Cents ($_____) | $_____ |
| 2 | 8,710 LF | Remove Chain-Link Fence, complete, per linear foot: _____Dollars and _____Cents ($_____) | $_____ |
| 3 | 1 EA | Remove Swing Gate, complete, per each: _____Dollars and _____Cents ($_____) | $_____ |
| 4 | 8,650 LF | Cochrane Parkland Fence, complete, per linear foot: _____Dollars and _____Cents ($_____) | $_____ |
| 5 | 5 EA | 10-Foot Wide Gate, complete, per each: _____Dollars and _____Cents ($_____) | $_____ |
| 6 | 1 EA | 40-Foot Wide Double Swing Gate, complete, per each: _____Dollars and _____Cents ($_____) | $_____ |

| Item | Quantity Unit | Description of Item and Unit Prices | Total Amount |
|---|---|---|---|
| 7 | 8,650 LF | Concrete Mow Strip, complete, per linear foot:<br>_____Dollars<br>and _____Cents ($_____) | $_____ |
| 8 | 1 LS | Temporary Fencing, including Fence material, Maintenance and Relocation, etc., per lump sum:<br>_____Dollars<br>and _____Cents ($_____) | $_____ |
| | | **TOTAL BID** | |

Bidder is required to separate cost of materials to be incorporated into this Project. Such material costs are separated from other costs, so Bidder is a seller of such materials to the City. Bidder shall be required to issue a resale certificate on such materials in lieu of paying sales tax on such materials at time of purchase. The City will provide successful Bidder with a sales tax exemption certificate for such materials.

Undersigned Bidder hereby confirms a visit to the Site of the Work and carefully examined Plans, Specifications, and Contract Documents pertaining to Work covered by this Bid, and prices bid herein are based on minimum wage rates included in Specifications.

Bidder certifies, by submission of this Proposal or acceptance of this Contract, neither Bidder nor Bidder's principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntary excluded from participation in this transaction by any Federal department or agency. Bidder further agrees by submitting this Proposal, Bidder will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where Bidder or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this proposal.

Contractor or subcontractor, by submission of offer/execution of a contract, certifies it:

a. is not owned or controlled by one or more citizens or nationals of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);
b. has not knowingly entered into any contract or subcontract for this Project with a contractor that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list.
c. has not procured any product nor subcontracted for the supply of any product for use on the Project that is produced in a foreign country on said list.

Unless restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to Contractor or subcontractor who is unable to certify to the above. If Contractor knowingly procures or subcontracts for supply of any product or service of a foreign country on said list for use on Project, the Federal Aviation Administration may direct, through the sponsor, cancellation of Contract at no cost to the Government.

Further, Contractor agrees if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. Contractor may rely upon the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

Contractor shall provide immediate written notice to sponsor if Contractor learns its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. Subcontractor agrees to provide immediate written notice to Contractor, if at any time it learns that its certification was erroneous by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award. If later determined Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct, through the sponsor, cancellation of contract or subcontract for default at no cost to the Government.

Nothing contained in the foregoing shall be construed to require establishment of a system of records to render, in good faith, certification required by this provision. Knowledge and information of a contractor is not required to exceed that normally possessed by a prudent person in the ordinary course of business dealings.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and making of a false, fictitious, or fraudulent certification may render maker subject to prosecution under Title 18, United States Code, Section 1001.

Bidder hereby agrees to commence work under this Contract within 10 days of a date specified in written "Notice to Proceed" and to complete work within the consecutive calendar day framework noted in Contract. Bidder further agrees to pay as liquidated damages, the sum of $ 1,000.00 for each consecutive calendar day beyond each phase of days allowed as hereinafter provided in Article 32 of the General Conditions.

Bidder acknowledges receipt of the following addendum:_____

_____

Enclosed with this Proposal is a Cashier's or Certified Check for_____

_____ Dollars ($_____)

or, a Proposal Bond in the sum of 5 percent of Greatest Amount Bid Dollars ($_____), which it is agreed shall be collected and retained by Owner as liquidated damages in the event the Proposal is accepted by the Owner within 90 days after date advertised for the reception of bids and undersigned fails to execute Contract or required bonds with Owner, under conditions hereof, within 10 days after date said proposal is accepted; otherwise, said check or bond shall be returned to undersigned upon demand.

_____
Contractor

(Seal if Bidder is a Corporation)

By_____

_____
Address

NOTE: Complete all blanks in this and accompanying forms and include proper Bid Security.

**CONTRACT**

STATE OF TEXAS

COUNTY OF MIDLAND

THIS CONTRACT is made and entered into this ____ day of_____ 20__, by and between the **CITY OF MIDLAND, TEXAS**, a home rule municipal corporation ("***Owner***"), and _____ _____, ("***Contractor***").

WITNESS: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by Owner, and under the conditions expressed in the bond bearing even date herewith, Contractor hereby agrees to commence and complete the construction of items of work included in this Project, described as the removal of existing chain link fence and installation of specified fence, gates, concrete strip, and grading.

Work will also include other miscellaneous materials, equipment, machinery, superintendence and labor for constructing these improvements for the Midland International Air & Space Port.

These improvements are shown on the plans and Specifications entitled "MDD, North Fence Replacement Project" dated November 2023. Plans and Specifications are hereby incorporated herein by reference for all legal purposes and shall apply to this Contract as if fully set forth herein.

This Contract shall include all extra work in connection therewith. All work performed hereunder shall be in accordance with those certain General Conditions and Special Provisions, which are attached hereto and hereby incorporated herein by referenced for all legal purposes and shall apply to this Contract as if fully set forth herein. Contractor shall, at Contractor's own proper cost and expense, furnish all materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete said construction, in accordance with conditions and prices stated in Proposal attached hereto, and in accordance with all General Conditions and Special Provisions, and in accordance with plans, which includes all maps, plats, blueprints, and other drawings and printed or written explanatory matter thereof, and Specifications therefor, as prepared by Parkhill ("***Engineer***"), each of which has been identified by endorsement of Contractor and Engineer thereon, together with Contractor's written Proposal, and General Conditions and Special Provisions, and Performance Bond and Payment Bond hereto attached; all of which are made a part hereof and collectively evidence and constitute the entire agreement between the parties hereof.

Contractor hereby agrees to commence work under this Contract within 10 days of a date specified in written "Notice to Proceed" and to complete work under Base Bid identified on Plans within 90 calendar days from Notice to Proceed.

Contractor further agrees to pay as liquidated damages the sum of one thousand dollars ($1,000.00) for each consecutive calendar day beyond days allowed as hereinafter provided in Article 32 of the General Conditions.

Owner agrees to pay Contractor from current funds for performance of this Contract in accordance with Proposal submitted therefor, subject to additions and deductions, as provided in specifications, and to make payments on account thereof as provided therein.

**BY EXECUTING THIS CONTRACT, CONTRACTOR AGREES TO WAIVE AND DOES HEREBY WAIVE ANY CLAIM CONTRACTOR HAS OR MAY HAVE AGAINST THE CITY OF MIDLAND, TEXAS, AND PARKHILL, REGARDING AWARD OF ATTORNEY FEES, WHICH ARE IN ANY WAY RELATED TO CONTRACT, OR CONSTRUCTION, INTERPRETATION OR BREACH OF CONTRACT. CONTRACTOR SPECIFICALLY AGREES IF CONTRACTOR BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS CONTRACT, CONSTRUCTION, INTERPRETATION, VALIDITY, OR BREACH OF THIS CONTRACT, INCLUDING BUT NOT LIMITED TO ANY ACTION PURSUANT TO PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, *ET SEQ*., AS AMENDED), CONTRACTOR AGREES TO WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO RECOVERY OF ATTORNEY FEES TO WHICH CONTRACTOR MIGHT OTHERWISE BE ENTITLED.**

**CONTRACTOR AGREES THIS IS INTENTIONAL RELINQUISHMENT OF A PRESENTLY EXISTING KNOWN RIGHT. CONTRACTOR ACKNOWLEDGES THAT CONTRACTOR UNDERSTANDS ALL TERMS AND CONDITIONS OF THIS CONTRACT.**

By execution of this Contract, Contractor hereby represents and warrants to the City of Midland, Texas, that Contractor has read and understood the Contract.

This Contract shall be governed by laws of the State of Texas. Venue of any suit, right or cause of action arising under or in connection with this contract shall lie exclusively in Midland County, Texas. All payments and performance under or connected to this contract shall be deemed to have occurred exclusively in Midland County, Texas.

IN WITNESS WHEREOF, the parties to these presents have executed this Agreement in the year and day first above written.

OWNER:

CITY OF MIDLAND, TEXAS

By_____
Lori Blong, Mayor

ATTEST:

By_____
Marcia Bentley-German, City Secretary

**CONTRACTOR:**

**By**_____
Signature

**Name, Title:** _____
Print

**Complete Address:**

_____

_____

STATE OF _____

COUNTY OF _____

Before me, _____, on this day, personally
Notary

appeared, _____ (Name of Signer), who

□ is known to me

□ proved to me on the oath of _____
Witness

□ proved to me through _____
Document Description

to be the person whose name is subscribed herein and acknowledged to me execution of the same for purposes and consideration herein expressed.

Given under my hand and seal of office this

_____ day of _____, A.D., _____.
Day Month Year

Notary Seal

_____
Signature of Notary Officer

**PERFORMANCE BOND**
SUBMITTED IN COMPLIANCE WITH CHAPTER 2253 OF THE TEXAS GOVERNMENT CODE

STATE OF TEXAS §

COUNTY OF MIDLAND §

KNOW ALL MEN BY THESE PRESENTS: That we, _____of the City of _____, County of _____, and State of _____, as Principal, and _____ _____ hereinafter called "Surety," are held and firmly bound unto the City of Midland, Texas, a home rule municipal corporation of Midland County, Texas, (hereinafter called the City-Obligee), in the penal sum of _____ _____ DOLLARS, ($_____) lawful money of the United States, well and truly to be paid to the City of Midland, Texas, for payment whereof said Principal and Surety bind themselves and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has entered a certain written contract with the Owner-Obligee, dated the _____ day of _____ 20__, to the North Fence Replacement Project for the Midland Airpark, Midland, Texas, specifically including in the scope of this work and bond, additional maintenance guaranty provisions set forth in Contract conditions, which Contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein, as well as the Principal's primary obligation to perform according to Plans and Specifications.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, if said Principal shall faithfully perform work in accordance with Plans, Specifications, Instructions to Bidders, General and Special Conditions, and other Contract Documents, including any addendums thereto, then this obligation shall be void; otherwise, to remain in full force and effect.

PROVIDED further if any legal action be filed upon this Bond venue shall lie in Midland County, State of Texas.

PROVIDED further this Performance Bond is submitted in compliance with Chapter 2253 of the Texas Government Code.

Surety, for value received, stipulates and agrees no change, extension of time, alteration, or addition to terms of the Contract, or to the work performed thereunder, or Plans, Specifications or Drawings

accompanying the same, or any assignment of the Contract as may be provided for in Instructions to Bidders, shall in any way affect its obligation on this Bond, and it does waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract, assignment thereof, or to the work to be performed thereunder.

IN WITNESS WHEREOF said Principal and Surety have signed and sealed this instrument, this ____ day of _____, 20__.

| | |
|---|---|
| _____ | _____ |
| Contractor | Surety |
| By _____ | By _____ |
| | (Title) |

NOTE: If signed by an officer of Surety Company, there must be on file a certified extract from by-laws showing this person has authority to sign such obligation. If signed by an Attorney in Fact, Owner must be furnished with a copy of Power of Attorney for their files.

**PAYMENT BOND**

SUBMITTED IN COMPLIANCE WITH CHAPTER 2253 OF THE TEXAS GOVERNMENT CODE

STATE OF TEXAS §

COUNTY OF MIDLAND §

KNOW ALL MEN BY THESE PRESENTS: That we, _____of the City of _____, County of _____, and State of _____ _____, as principal, and _____, hereinafter called "Surety," are held and firmly bound unto the City of Midland, Texas, a home rule municipal corporation of Midland County, Texas, (hereinafter called "City-Obligee"), in the penal sum of _____ DOLLARS, ($___ _____) lawful money of the United States, well and truly to be paid to the City of Midland, for payment whereof said Principal and Surety bind themselves and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has entered into a certain written contract with Owner-Obligee, dated the ____ day of _____ 20_, to the North Fence Replacement Project for the Midland Airpark, Midland, Texas which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, the condition of this obligation is if said Principal shall pay all claimants supplying labor and material to him or a subcontractor in the prosecution of the work provided for in said contract, then this obligation shall be null and void; otherwise, to remain in full force and effect.

PROVIDED further if any legal action be filed upon this Bond venue shall lie in Midland County, State of Texas.

PROVIDE further this Payment Bond is submitted in compliance with Chapter 2253 of the Texas Government Code.

Surety, for value received, stipulates and agrees no change, extension of time, alteration, or addition to terms of this Contract, or to Work performed thereunder, or Plans, Specifications, or Drawings accompanying the same, or any assignment of Contract as may be provided in Instructions to Bidders, shall in any way affect its obligation on this Bond, and it does waive notice of any such change, extension of time, alteration, or addition to terms of the Contract, assignment thereof, or to work to be performed thereunder.

WITNESS our hands this the _____ day of _____, 20___.

| | |
|---|---|
| _____ | _____ |
| Contractor | Surety |
| By_____ | By _____ |
| | (Title) |

NOTE: If signed by an officer of Surety Company, there must be on file a certified extract from by-laws showing this person has authority to sign such obligation. If signed by an Attorney in Fact, Owner must be furnished with a copy of Power of Attorney for their files.

**CERTIFICATE OF INSURANCE**

TO: CITY OF MIDLAND
MIDLAND AIRPARK
MIDLAND, TEXAS

Date _____

Type of Project: North Fence Replacement

THIS IS TO CERTIFY THAT _____
(Name of Insured)

is, at the date of this certificate, insured by this Company with respect to business operations hereinafter described, for types of Insurance and in accordance with provisions of standard policies used by this Company, and further hereinafter described. Exceptions to standard policy noted on reverse side hereof.

SAMPLE ONLY
SUCCESSFUL
CONTRACTOR
SHALL PROVIDE
CERTIFICATE FROM
INSURANCE
HIS CARRIER

| TYPE OF INSURANCE | | | | |
|---|---|---|---|---|
| Policy No | Effective | Expires | Limits of Liability | |
| Workmen's Compensation | | Public | | |
| 1 person | $_____ | Liability | | |
| 1 accident | $_____ | Contingent | | |
| 1 person | $_____ | Liability | | |
| 1 accident | $_____ | | | |
| Property Damage | | | | |
| Builder's Risk | | | | |
| Automobile | | | | |
| Other | | | | |

Foregoing Policies (do) (do not) cover all sub-contractors.

Locations Covered:_____

Description of Operations Covered:_____

The noted policies either in the body thereof or by appropriate endorsement provide they may not be changed or cancelled by insurer in less than the legal time required after insured receives written notice of such change or cancellation, or, in case there is no legal requirement, in less than five days after insured receives such written notice.

SEND EIGHT COPIES OF THIS
CERTIFICATE TO OWNER

_____
(Name of Insurer)

By _____

Title _____

Phone _____

**NOTE: Name CITY OF MIDLAND and PARKHILL as additional insureds on required insurance policies.**

**EXPERIENCE RECORD**

List of Projects, like that covered by Proposal, Bidder successfully completed:

| Amount of Contract Award | Type of Work | Date Completed | Name and Address of Owner |
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PACKET 21.29 November 14, 2023

List of Projects Bidder is now engaged in completing:

| Amount of Contract Award | Type of Work | Percent Completed | Name and Address of Owner |
|---|---|---|---|
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List of Surety Bonds in force on uncompleted work:

| Amount of Contract Award | Amount of Bond | Name of Surety Company |
|---|---|---|
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_____
Bidder

Print Name:_____

_____

_____
Business Address

## EQUIPMENT SCHEDULE

Bidder should list major equipment available and serviceable for use on this Work.

Portion of Work Bidder proposes to sublet, if any:

Dated this _____ day of _____, 20____.

By _____

Title _____

**FAA**
**Airports**

# Contract Provision Guidelines for Obligated Sponsors and Airport Improvement Program Projects

(Issued on May 24, 2023)

## Contents

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# APPENDIX A – CONTRACT PROVISIONS

## A1 CIVIL RIGHTS - GENERAL

### A1.1 MANDATORY CONTRACT CLAUSES

#### A1.1.1 General Clause that is used for Contracts, Lease Agreements, and Transfer Agreements

**GENERAL CIVIL RIGHTS PROVISIONS**

In all its activities within the scope of its airport program, the Contractor agrees to comply with pertinent statutes, Executive Orders, and such rules as identified in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

#### A1.1.2 Specific Clause that is used for General Contract Agreements

The above provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract.

## A2 CIVIL RIGHTS – TITLE VI ASSURANCE

### A2.1.1 Title VI Solicitation Notice

**Title VI Solicitation Notice:**

The **Midland International Air and Space Port**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that for any contract entered into pursuant to this advertisement, [select businesses, or disadvantaged business enterprises or airport concession disadvantaged business enterprises] will be afforded full and fair opportunity to submit bids in response to this invitation and no businesses will be discriminated against on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in consideration for an award.

### A2.1.2 Title VI List of Pertinent Nondiscrimination Acts and Authorities

**Title VI List of Pertinent Nondiscrimination Acts and Authorities**

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq*., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 *et seq*.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 *et seq*.) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-259) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990 (42 USC § 12101, et seq) (prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration's Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations);
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs [70 Fed. Reg. 74087 (2005)];
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC § 1681, et seq).

### A2.1.3 Nondiscrimination Requirements/Title VI Clauses for Compliance

**Compliance with Nondiscrimination Requirements:**

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor"), agrees as follows:

1. **Compliance with Regulations:** The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the Sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance:** In the event of a Contractor's noncompliance with the non-discrimination provisions of this contract, the Sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

    a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or

    b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. **Incorporation of Provisions:** The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the Sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the Sponsor to enter into any litigation to protect the interests of the Sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

## CONTRACT ASSURANCE

Contractor will ensure the following clause is placed in every DOT-assisted contract and subcontract:

Contractor or subcontractor shall not discriminate based on race, color, national origin, or sex in performance of this Contract. Contractor shall carry out applicable requirements of 49 CFR Part 26 in award and administration of DOT-assisted contracts. Failure by Contractor to carry out requirements is a material breach of this Contract which may result in termination of this Contract or such other remedy as recipient deems appropriate. This may include, but is not limited to:

1. Withholding monthly progress payments;
2. Assessing sanctions;
3. Liquidated damages; and/or
4. Disqualifying Contractor from future bidding as non-responsible.

PROMPT PAYMENT

Prime Contractor agrees to pay each subcontractor under this Prime Contract for satisfactory performance of contract no later than 30 working days from receipt of each payment Prime Contractor receives from the City of Midland. Prime Contractor agrees further to return retainage payments to each subcontractor within 30 working days after subcontractor's work is satisfactorily completed. Any delay or postponement of payment from above referenced time frame may occur only for good cause following written approval of the City of Midland. The clause applies to both DBE and non-DBE subcontractors.

For purposes of this section, a subcontractor's work is satisfactorily completed when all tasks called for in subcontract have been accomplished and documented as required by the City of Midland. When the City of Midland makes an incremental acceptance of a portion of a prime contract, work of a subcontractor covered by that acceptance is deemed satisfactorily completed.

Contractor will not be reimbursed for work performed by subcontractors unless and until Contractor ensures subcontractors are promptly paid for Work they have performed.

# SPECIAL PROVISIONS

## SP-1 SCOPE OF WORK

Work to be accomplished under these Specifications including plans shall consist of:

1.1 Principal items of Work are set forth in specific detail in the proposal section of these Specifications; however, Work may be generally described as the removal of existing chain link fence and installation of specified fence, gates, concrete strip, and grading.

1.2 Work will also include other miscellaneous materials, equipment, machinery, superintendence, and labor for constructing these improvements for the Midland Airpark (MDD), Midland, Texas.

1.3 Contractor shall furnish all labor, materials, and equipment necessary to complete Work called for in these Specifications and shown on the Plans.

1.4 Payment for various items of Work will be made as specified under various payment articles of Technical Sections.

## SP-2 CONTRACT DOCUMENTS

All Work covered by this Contract shall be done in accordance with Contract Documents described in the General Conditions. Drawings included in documents consist of the plans entitled "North Fence Replacement Project," dated November 2023.

Bidders shall be thoroughly familiar with all Drawings and Specifications. Contractor shall be responsible for satisfactory completion of all Work shown on Drawings or specified.

Intent of Plans and Specifications is to prescribe a complete Work or improvement which Contractor undertakes to do in full compliance with Plans, Specifications, Special Provisions, Proposal, and Contract. Contractor shall do all Work including such additional, extra, and incidental Work considered necessary to complete the Project in a satisfactory and acceptable manner, as provided in Plans, Proposal, and Contract. Unless otherwise provided in Specifications, Special Provisions, or Contract, Contractor shall furnish all materials, equipment, tools, labor, and incidentals necessary to prosecute completion of Work.

Contract Documents are complementary and that called for by any one entity shall be as binding as if called for by all. In case of conflict between Contract Documents, priority of interpretation shall be in the following order:

- Signed Contract,
- Performance Bond,
- Special Bonds (if any),
- Proposal,
- Special Provisions,
- Notice to Bidders,
- Instructions to Bidders,
- Technical Specifications,
- Plans, and
- General Conditions of Contract.

## SP-3 TIME AND ORDER OF COMPLETION

Contractor is permitted to prosecute certain portions of Work in order and manner of own choosing to the best interest of the Project; however, Work shall be conducted in such manner and with such materials, equipment, and labor as required to ensure completion in accordance with Plans and Specifications within time stated in Proposal and Contract. Contractor shall furnish Parkhill with proposed progress schedule and Parkhill shall approved schedule before Work is commenced on Project.

Contractor is reminded approved material submittals are required before incorporation of materials into this Project. To avoid delays in Work progress, provide complete information to Parkhill as early as possible for review and approval.

Contractor will be required to execute various portions of the Project in phases to maintain usage of airport facilities as well as safety during the entire Project. Contractor will be allowed to develop own phasing plan which will meet phasing intent shown on Plans. Contractor phasing plan will be subject to Parkhill approval.

Other Contractors may perform Work for Owner in the same general area as that covered under this Contract. Contractor shall be expected to coordinate his Work with Work of other Contractors as required to ensure all Work can be carried out with the least possible interference with operation of other contractors or Owner. Contractor coordination with other contractors shall require Parkhill approval. Owner reserves the right to control and direct sequence of operations in areas others will be working. Provision shall be made for other contractors to have suitable space to Work, store materials, as well as access to these areas.

Contractor shall schedule Work well in advance of actual operations and keep Parkhill advised of this schedule so close coordination can be maintained with Director of Airports and other contractors. Portions of taxiways and runways will be closed as required for proper execution of Work, but at least three days' notice will be required before closing any portion of a taxiway or runway. Director of Airports will file Notice to Airmen (NOTAMs) required for various construction operations.

When closing portions of airfield for construction, keep time closed to a minimum. Contractor is required to provide, install, and maintain approved closed runway/taxiway markings in accordance with the latest FAA Advisory Circular 150/5370 and other applicable FAA regulations. No separate measurement or payment shall be made for closed runway or taxiway marking. Coordinate all operations through Parkhill and Director of Airports.

## SP-4 LIMITATION OF OPERATION

Complete each item of Work without delay. In no instance shall Contractor be permitted to transfer forces from uncompleted Work to new Work without Parkhill permission. Contractor is required to submit a schedule of operations to Parkhill for approval. Contractor shall not commence new Work to the prejudice of Work already started.

Contractor shall take all necessary precautions to ensure operating aircraft and passenger safety as well as that of Contractor equipment and personnel. Give special considerations to flight schedules and routes taken by equipment traveling within Airport area. Contractor shall provide all such equipment with a flag on a staff attached to equipment, so flag is readily visible. Flag shall be not less than 3 feet square, checkered pattern of international orange-and-white squares, not less than 1 foot on each side. Contractor shall estimate all difficulties to be encountered. Keep equipment not actually in operation clear of landing areas. Personnel shall not enter areas of Airport where aircraft are operating without specific permission.

Nighttime construction activities are not permitted without prior approval of Parkhill and Director of Airports. If required and permitted, nighttime construction activities shall be as noted on Plans and coordinated, through Parkhill, with Director of Airports. During nighttime construction, Contractor shall provide all equipment traveling within Airport area with a flashing light that is always visible and operational.

Coordinate all operations through Parkhill and Director of Airports, so no interference with aircraft traffic on active runways, taxiways, or aprons will result from Contractor operations. Construction activities are not allowed within safety areas of any active runway/taxiway unless approved by Parkhill and Director of Airports.

- Taxiway safety area is the area within 37.5 feet of the centerline of any taxiway/taxilane.
- Runway safety area is the area within 250 feet of the centerline of any runway when aircraft are operating under Visual Flight Rule (VFR, clear weather) conditions.

As required, Contractor shall maintain flagpersons to direct construction traffic to cross or travel along any active taxiway, apron, or runway. Direct traffic away from these facilities when possible and never allow traffic to cross an active runway, taxiway, or apron without proper clearance.

Contractor shall schedule Work well in advance of actual operations and keep Parkhill advised of this schedule so close coordination can be maintained with Director of Airports. Aprons, runways, and taxiways will be closed as required for proper execution of Work as provided in previous Articles.

Contractor shall exert every effort to maintain safety of aircraft traffic and be acquainted with rules and regulations concerning aircraft traffic safety. Maintain FAA Advisory Circular 150/5370-2G, "Operational Safety on Airports during Construction," requirements. Violations of safety rules by Contractor workers shall result in discharge of such workers in accordance with General Conditions. Continued violations of safety rules and regulations by Contractor, after Parkhill or MAF notify Contractor of such violations, shall constitute grounds for suspending Contractor operations until steps are taken to insure a safe operation.

Contractor's field office and material storage area may be located inside secure area of Airport but outside safety areas of taxiways/runways near construction. Contractor shall provide an area for parking all equipment not used for construction purposes, as well as for parking employee vehicles. This area shall be located away from the Airport operational area (AOA) in an area approved by Parkhill and Director of Airports. No employee or other unauthorized vehicles will be allowed within the AOA. If Contractor needs field office outside of secure area, Contractor can install temporary security fencing around office site. Airport must approve security fence.

Contractor shall utilize existing vehicle gates for employees and subcontractors. Contractor shall be responsible for allowing only authorized personnel to enter the AOA through this gate. Contractor shall always control entrance through the gate by employees or subcontractors entering/exiting the gate.

Hauling routes shall not be along/across any paved airport street, road, apron, taxiway, or runway without specific written authorization from Parkhill and Director of Airports. Any damage incurred by Contractor equipment shall be repaired by and at Contractor expense and as required by Parkhill and Director of Airports.

Contractor shall maintain pavement surfaces of runways, taxiways, and aprons, allowed to be used as hauling routes, in a clean condition, suitable for use by aircraft, as determined by Director of Airports.

Successful Bidder is subject to a pre-award review by Office of Compliance and Security, Equal Opportunity Division, Federal Aviation Administration, to determine Contractor's previous compliance status.

Contractor is subject to a preconstruction conference to discuss phasing and Project safety control after award of Contract.

SP-5 CONSTRUCTION ACTIVITY

DELETED

SP-6 AFFIDAVIT OF BILLS PAID

Before Owner's final acceptance of this Project, Contractor shall execute an affidavit that all bills for labor, materials, and incidentals incurred in construction of these improvements, are paid in full, including any retainage, and no claims are pending, of which Contractor is notified.

SP-7 CALENDAR DAY

Time for Project completion and liquidated damages shall be in accordance with provisions of General Conditions, Article GC-32 - Time for Completion and Liquidated Damages. A calendar day is every day shown on the calendar.

SP-8 PROTECTION OF PROPERTY

Contractor shall exercise care to prevent damage to all structures, above or below ground, including buildings, fences, pipelines, utilities, roads, etc., publicly or privately owned, and including Work performed by others. Contractor is responsible for locating all underground facilities damaged by proposed construction.

Contractor shall be responsible for all damage done to either public or private property during construction except as specifically provided otherwise in these Specifications.

Known existing underground utilities and structures are shown on Plans. Locations are believed reasonably accurate but not guaranteed.

Contractor shall take all steps necessary to protect existing facilities during construction to assure continuous operation of lights for runways and taxiways which will be open for night operations.

SP-9 ELECTRIC POWER AND NATURAL GAS

Contractor shall provide electrical, natural gas, and other fuel requirements and pay for electricity, gas, or fuel consumed during Project construction. Contractor shall construct own service lines and such construction shall be in strict accordance with all applicable codes and laws.

SP-10 LINES AND GRADES

Parkhill will provide Contractor with horizontal control points and a benchmark for vertical control. Contractor shall do all construction staking. References to lines and grades as established by Parkhill shall reference these control points.

Parkhill will provide Contractor with all necessary information relating to control points set by Parkhill. Contractor will be responsible for laying out Work. Parkhill will check Contractor's grade control

and major layouts at Parkhill's discretion, but this check will not relieve Contractor of responsibility of correctly locating line and grade in accordance with Plans and Specifications.

Parkhill will take all measurements necessary to determine amount of Work performed under various items payment is provided. When necessary, Work will be suspended to permit this Work, but such suspension will be as brief as practicable, and Contractor shall be allowed no extra compensation.

Contractor shall be certain as to accuracy of all measurements before constructing any permanent structure and not take advantage of any errors made in laying out Work. Contractor shall scrupulously preserve such stakes/markings as Parkhill may set for either Parkhill or Contractor guidance. In case of Contractor or employee negligence resulting in destruction of such stakes/markings, an amount equal to the cost of replacing same may be deducted from subsequent estimates due Contractor, at Parkhill discretion.

SP-11 WATER FOR CONSTRUCTION

Contractor shall provide for water requirements and pay for all water consumed during Project construction. Contractor shall arrange and pay for connections to existing water mains, fire hydrants, and piping/hauling water to the point where water is required.

SP-12 MATERIAL TESTS

Specifications require various tests on construction materials. In general, Contractor shall bear the cost of all material tests required before approval of material, source, or mix design. City will bear the cost of all passing commercial laboratory tests required for acceptance during construction of improvements and Contractor shall bear the cost of all failing construction tests.

Where only small amounts of material are used or where compliance with Specifications determined by visual inspection, no tests are required. Certificates of compliance required on all materials not tested.

All materials proposed used may be tested any time during preparation and use. If, after trial, sources of supply approved do not furnish a product of uniform quality or product from any source proves unacceptable any time, Contractor shall furnish approved material from another source.

SP-13 BARRICADES, SIGNS, AND HAZARD MARKINGS

Contractor shall provide, erect, and maintain all necessary barricades, signs, danger signals, and lights for protection of Work and the safety of the public for passengers and aircraft. Before closing existing apron, runways, or taxiways, place warning signs for air traffic at such locations, visible day and night. Any movement of Contractor vehicles or equipment on/across aprons or taxiways shall carry FAA standard markings or flags. Movement of other vehicles responsible to Contractor shall be under escort, as specified in Article SP-5-2.

Barricades for runways, taxiways, and aprons closed to traffic shall consist of 10-inch-wide by 8-foot-long plastic, FAA-approved barricades. Each barricade shall have reflective striping and a red flashing light on each end. Barricades shall be spaced with no more than 10-foot clearance between flashing lights attached to successive barricades. Obstructions shall be illuminated at night. Proper illumination of obstructions is critical to safe operation of aircraft on the Airport. All warning lights shall be equipped with photocell controls to automatically turn on lights at night and off at daytime. Contractor shall check lights daily (and each night) to assure batteries/power cells are working. Immediately replace or repair any lights found out-of-order, flashing weakly, or in otherwise less than acceptable operating condition. Parkhill may suspend Work on Project if Contractor's warning lights are not maintained. A $25.00/day charge will be assessed Contractor for each light found inoperative by Owner's personnel or representatives.

SP-14 PREVENTION OF AIR AND WATER POLLUTION

Contractor shall use suitable precaution to minimize air and water pollution during Work progress. Contractor shall meet all EPA requirements concerning air and water pollution. Contractor shall implement a Stormwater Pollution Prevention Plan (SWPPP) as required by Plans and Specifications.

SP-15 PUBLIC CONVENIENCE AND SAFETY

Materials stored on the Airport shall be placed and Work always conducted to cause no greater obstruction to air and ground traffic than Parkhill consider necessary. In protecting operational areas, minimum clearances maintained for runways shall agree with Part 77 of Federal Aviation Regulations. During Project construction, Contractor shall also maintain operational safety on Airport in accordance with the FAA Advisory Circular 150/5370-2G, "Operational Safety on Airports during Construction" and SW5200.5B, "Airport Safety during FAA-funded Airport Construction and FAA Facilities Maintenance." No runway, taxiway, apron, or roadway shall be closed or opened except by express permission from Parkhill and Director of Airports.

Contractor shall be responsible for maintaining pavement free of all rocks, gravel, dirt, and other debris where hauling is permitted on/across any active roadway, apron, runway, taxiway, or areas temporarily closed subject to opening on short notice. Contractor shall immediately remove all rocks, gravel, dirt, or other debris.

SP-16 FINAL CLEANING

As each intermediate phase of Work is completed and before opening any portion of any airfield apron, roadway, runway, or taxiway, Contractor shall be responsible for cleaning construction site and adjacent pavement as specified.

Upon completion of Work and before acceptance and final payment is made, Contractor shall remove from the site all machinery, equipment, surplus and discarded materials, rubbish, and temporary structures. Material cleared from site and deposited on adjacent property will not be considered satisfactorily disposed. Cleanup cost shall be included as a part of cost of various items of Work involved with no direct compensation made for this Work.

SP-17 INSURANCE

Contractor shall not begin Work under this Contract until all insurance is obtained as required in General Conditions of Contract, proof of same is furnished to Owner, and Owner approves. All insurance required for this Project shall name the City of Midland and Parkhill as additional insureds.

Contractor shall obtain and deliver to Owner, an Owner's Protective or Contingent Public Liability Insurance Policy naming the City of Midland and Parkhill as additional insureds and amount of policy shall be as follows:

- $1,000,000 for injuries, including accidental death, to one or more persons and subject to noted limit for each person;
- $1,000,000 total limit for all damages arising out of bodily injuries to or death of two or more persons in any one accident;
- limit not less than $1,000,000 for all damages arising out of injury to or destruction of property in any one accident, and subject to that limit per accident; and
- $2,000,000 total (or aggregate) limit for all damages arising out of injury to or destruction of property during policy period.

Before Work on any Contract or subcontract begins, Contractor(s) and subcontractor(s) shall submit seven certificates to Owner for approval covering each insurance policy carried and offered as evidence of compliance with noted requirements, signed by an authorized representative of insurance company, setting forth:

- name and address of insured;
- location of operations to which insurance applies,
- number of policy and type(s) of insurance in force thereunder on date borne by such certificate;
- policy expiration date and limit(s) of liability thereunder on date borne by such certificate;
- statement insurance of type afforded by policy applies to all operations of whatever character, undertaken by insured during performance of Contract, provided such operations are required in performance of Contract and
- provision the policy may be canceled only by mailing written notice to named insured at address shown in this policy stating when, not less than 10 days thereafter, and cancellation of such policy shall be effective, with copy to Owner of letter of intent.

These certificates will become a part of Contract Documents and must be included with Contract Documents before execution by the City of Midland. Coverages specified herein apply to all Contractor operations in connection with this Work, including automobile and other vehicles.

Contractor's insurance shall cover self, all subcontractors, and sub-subcontractors. All other sublevels of Contractors shall provide copies of proof of insurance if not covered by the general Contractor.

Contractor shall provide a Waiver of Subrogation in favor of the City of Midland and Parkhill on Worker's Compensation and Employee Liability Insurance, Contractor's Public Liability and Property Damage Liability Insurance, and Automobile Insurance.

SP-18 REMOVAL AND DISPOSAL OF STRUCTURES, UTILITIES, AND OBSTRUCTIONS

All materials and debris specified to be disposed by Contractor shall become Contractor's property and Contractor shall properly dispose off Airport property.

SP-19 CONFORMITY WITH PLANS AND ALLOWABLE DEVIATIONS

Finished surfaces shall conform to lines, grades, cross sections, and dimensions. Any deviation from Plans required by exigencies of construction shall be determined and authorized by Parkhill in writing.

SP-20 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

All Work rejected or condemned shall be repaired or, if not satisfactorily repaired, removed and replaced at Contractor expense. Contractor shall immediately remove materials not conforming to Specification requirements from site of Work and replaced with satisfactory material at Contractor expense.

Work done beyond that shown on Plans, or as given, except as herein provided, without proper inspection, or any extra or unclassified Work done without written authority and prior agreement in writing as to prices, will be done at Contractor risk and considered unauthorized and, at Parkhill option, may not be measured, paid for, and may be ordered removed and replaced at Contractor expense.

Upon Contractor failure to repair satisfactorily or remove and replace, if so directed, rejected, unauthorized, or condemned Work or materials immediately after receiving formal notice from Parkhill, Owner may recover for such defective Work or materials on Contractor bond, or by action in court having

proper jurisdiction over such matters, or may employ labor, equipment, and satisfactorily repair or remove and replace such Work and charge cost of same to Contractor, which will be deducted from any money due.

SP-21 DISPUTED CLAIMS FOR EXTRA WORK

In case Contractor deems extra compensation is due for Work on materials not clearly covered in Contract nor ordered by Parkhill as an extra, Contractor shall notify Parkhill in writing of intention to make a claim for such extra compensation before beginning Work on which claim is based and shall afford Parkhill every facility for keeping actual cost of Work. Contractor's failure to give such notification or afford Parkhill proper facilities for keeping strict account of actual costs, shall constitute a waiver of claim for such extra compensation. Contractor's filing of such notice and keeping of costs by Parkhill shall not in any way be construed to prove claim validity. When Work is completed, Contractor shall, within 10 days, file a claim for extra compensation with Parkhill, who will present it to Owner for consideration.

SP-22 FEDERAL PARTICIPATION

Pursuant to provisions of the Act of Congress known as the Airport Improvement Program of 1982 as amended, the United States Government may pay a portion of improvement cost. This Act of Congress provides construction Work and labor in each state shall be in accordance with laws of that state subject to FAA inspection and approval and in accordance with rules and regulations made pursuant to said Act. Construction Work, therefore, will be subject to such inspection by FAA Administrator or agents as deemed necessary to meet with requirements when Federal funds are used, but such inspection will in no sense make the Federal Government a party to this Contract nor interfere with rights of either party to Contract.

SP-23 INDEMNIFICATION

**CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND OWNER, PARKHILL, AND ALL OFFICERS, AGENTS, AND EMPLOYEES FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, ACCIDENTAL DEATH, LOSSES, PROPERTY DAMAGE, AND EXPENSES OF ANY CHARACTER WHATSOEVER, INCLUDING REASONABLE ATTORNEY FEES, BROUGHT FOR/ON ACCOUNT OF ANY INJURIES/DAMAGES RECEIVED/SUSTAINED BY ANY PERSON(S)/PROPERTY, ON ACCOUNT OF ANY NEGLIGENT ACT OF CONTRACTOR, AGENTS, EMPLOYEES, OR ANY SUBCONTRACTOR, IN EXECUTION, SUPERVISION, AND OPERATIONS GROWING OUT OF OR IN ANY WAY CONNECTED WITH PERFORMANCE OF THIS CONTRACT, AND CONTRACTOR IS REQUIRED TO PAY ANY JUDGMENT WITH COSTS OBTAINED AGAINST OWNER, PARKHILL, OR ANY OFFICERS, AGENTS, OR EMPLOYEES, INCLUDING REASONABLE ATTORNEY FEES.**

**CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND OWNER AND ALL OWNER'S OFFICERS, AGENTS, AND EMPLOYEES AND PARKHILL AND OFFICERS, AGENTS, AND EMPLOYEES OF PARKHILL FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, ACCIDENTAL DEATH, PROPERTY DAMAGE, LOSSES, AND EXPENSES OF ANY CHARACTER WHATSOEVER, INCLUDING ATTORNEY FEES, BROUGHT FOR/ON ACCOUNT OF ANY INJURIES/DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON(S)/PROPERTY, ON ACCOUNT OF ANY NEGLIGENT ACT OF OWNER, OWNER'S OFFICERS, AGENTS, AND EMPLOYEES, OR ON ACCOUNT OF ANY NEGLIGENT ACT OF PARKHILL, OR OFFICERS, AGENTS, AND EMPLOYEES OF PARKHILL WHETHER SUCH NEGLIGENT ACTS WERE SOLE PROXIMATE CAUSE OF INJURY/DAMAGE OR A PROXIMATE CAUSE JOINTLY AND CONCURRENTLY WITH CONTRACTOR OR CONTRACTOR'S EMPLOYEES, AGENTS, OR SUBCONTRACTORS NEGLIGENCE, IN EXECUTION, SUPERVISION, AND OPERATIONS GROWING OUT OF/IN**

**ANY WAY CONNECTED WITH PERFORMANCE OF THIS CONTRACT, AND CONTRACTOR IS REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST OWNER OR ANY OFFICERS, AGENTS, OR EMPLOYEES, INCLUDING REASONABLE ATTORNEY FEES.**

**CONTRACTOR AGREES TO INDEMNIFY AND SAVE OWNER AND PARKHILL HARMLESS FROM ALL CLAIMS GROWING OUT OF ANY DEMANDS OF SUBCONTRACTORS, LABORERS, WORKMEN, MECHANICS, MATERIALMEN, AND FURNISHERS OF MACHINERY AND PARTS THEREOF, EQUIPMENT, POWER TOOLS, ALL SUPPLIES, INCLUDING COMMISSARY INCURRED IN FURTHERING PERFORMANCE OF THIS CONTRACT. WHEN OWNER SO DESIRES, CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE ALL OBLIGATIONS OF NATURE HEREINABOVE DESIGNATED HAVE BEEN PAID, DISCHARGED, OR WAIVED.**

**CONTRACTOR HEREBY WAIVES ALL RIGHTS TO ANY ATTORNEY FEES AWARDED AS RESULT OF ANY ACTION BROUGHT UNDER THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT RELATING TO THIS CONTRACT.**

SP-24 CONTRACTOR RESPONSIBILITY FOR WORK

Until acceptance by Parkhill of any part or all construction, as provided for in these Specifications, it shall be under charge and care of Contractor who shall take every necessary precaution against injury or damage to any part of Work by action of elements or from any other cause whatsoever, whether arising from execution/non-execution of Work. Contractor shall rebuild, repair, restore, and make good, at own expense, all injuries or damage to any portion of Work occasioned by any noted cause before completion and acceptance.

SP-25 CORRECTION OF FAULTY WORK AFTER FINAL PAYMENT

Making final payment by Owner to Contractor shall not relieve Contractor of responsibility for faulty materials or workmanship. Contractor shall promptly replace any such defects discovered within one year from date of written acceptance of Work.

**Performance Bond shall remain in effect until one year after date of written acceptance of Work to insure compliance by Contractor with requirements of this Article.**

SP-26 TEXAS STATE SALES TAX

Work under this Contract is for an entity which qualifies for exemption pursuant to provisions of Article 151.309 of the Texas Tax Code.

Contractor performing this Contract may purchase, rent, or lease all materials, supplies, and equipment incorporated into Project by issuing an exemption certificate to supplier in lieu of tax, said exemption certificate complying with State Comptroller rulings. However, equipment and parts for equipment purchased used on Project but not incorporated into Project do not qualify for said tax exemption.

Contractor shall issue a resale certificate in lieu of paying such sales tax for all materials incorporated into Project. Further, Contractor shall separate charges for materials incorporated into Project from charges for labor. Any such exemption certificate issued by Contractor in lieu of tax shall be subject to provisions of State Comptroller rulings.

SP-27 SEPARATE CONTRACTS

Owner reserves the right to let other contracts about/near Project. Contractor shall afford other contractors a reasonable opportunity for introduction and storage of materials, execution of Work, and coordinate Work with theirs. Contractor coordination with other contractors shall require Parkhill approval. See Article SP-3 for additional requirements concerning separate Contracts.

SP-28 TRENCH SAFETY

Contractor shall strictly comply with all requirements of Occupational Safety and Health Administration (OSHA) Manual, Chapter XVII, Subpart P - Excavation, Trenching and Shoring, for all trenching and excavation operations.

If depths of trenches are encountered over 5 feet, Contractor shall cut trench walls to angle of repose of soils encountered or submit alternate shoring details to Parkhill for approval.

SP-29 LOAD RESTRICTIONS

Contractor shall comply with all legal load restrictions in hauling materials on public roads beyond limits of Work. A special permit will not relieve Contractor of liability for damage which may result from moving material or equipment.

Equipment operations of such weight or so loaded to cause damage to structures or any other type of construction will not be permitted. Hauling materials over base course is not permitted. Hauling materials over base or surface course under construction shall be limited as directed. No loads will be permitted on a concrete pavement, base, or structure before curing period expiration. Contractor shall be responsible for all damage done by hauling equipment and shall correct such damage at own expense.

SP-30 NOTICE TO PROCEED

Notice to proceed shall state the date on which it is expected Contractor will begin construction and from which date Contract time will be charged. Contractor shall begin Work to be performed under Contract within 10 days of date set by Parkhill in written Notice to Proceed, but in any event, Contractor shall notify Parkhill at least 24 hours in advance of time actual construction operations will begin.

SP-31 PAYMENT FOR MATERIALS ON HAND

Partial payments may be made to extent of delivered cost of materials to incorporate in Work, if such materials meet requirements of Contract, Plans, and Specifications and are delivered to acceptable sites on Airport property or other sites in the vicinity acceptable to Owner. Such delivered costs of stored or stockpiled materials may be included in next partial payment after these conditions are met:

A. Material is stored/stockpiled in a manner acceptable to Parkhill at/on an approved site.
B. Contractor furnished Parkhill with acceptable evidence of quantity and quality of such stored/stockpiled materials.
C. Contractor furnished Parkhill with satisfactory evidence material and transportation costs have been paid. Contractor is to provide copies of invoices paid (listing the cost of each item) for materials on hand requested on partial payment request.
D. Contractor furnished Owner legal title (free of liens/encumbrances of any kind) to material so stored/stockpiled.
E. Contractor furnished Owner evidence material stored/stockpiled is insured against loss by damage to or disappearance of such materials any time before use in Work.

Transfer of title and Owner's payment for such stored/stockpiled materials shall in no way relieve Contractor of responsibility for furnishing and placing such materials in accordance with requirements of Contract, Plans, and Specifications.

In no case will amount of partial payments for materials on hand exceed Contract price for such materials or Contract price for Contract item in which material is intended for use.

No partial payment made for stored/stockpiled living or perishable plant materials.

Contractor bears all costs associated with partial payment of stored/stockpiled materials in accordance with provisions of this subsection. See also General Conditions Article GC-46 - Partial Payments.

SP-32 WEIGHING AND MEASURING EQUIPMENT

Except as modified herein, all scales and scale installations shall meet requirements of the National Institute of Standards and Technology Handbooks 44 and 112 (published by U.S. Department of Commerce and available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.D. 20402-9325), except required accuracy shall be 0.4 percent of load weighed or one graduation on the scale dial. Contractor shall provide personnel, facilities, and equipment for checking scales to Parkhill satisfaction.

Check all scales before beginning operations, after each move, at times when, in Parkhill opinion, there is a question as to accuracy/adequacy, and at least once each six months. Contractor shall furnish a report of calibration from a scale mechanic licensed by the Texas Department of Agriculture using certified weights and approved by Parkhill, certifying scales meet requirements of this item. Plant operations shall cease during checking operation. When inaccuracy/inadequacy is discovered, do not resume scale use until corrective measures are complete and/or scales calibrated. When equipment is adjusted, modify to bring performance errors as close as practicable to zero value.

SP-33 PROGRESS SCHEDULE

Within 15 working days after award of Contract (or at Preconstruction Meeting), Contractor shall submit a Project progress schedule. Progress schedule shall be prepared in a form suitable to Parkhill and show proposed starting and completion dates for each phase of construction as well as each item of Work within each phase. Progress schedule shall include a "Percent Complete Curve" with monthly amount, cumulative amount, and cumulative percent. Progress schedule, if suitable and indicates certain Project completion within the specified time, will be approved in writing by Parkhill. Revisions/changes in approved progress schedule may only be made with Parkhill approval.

SP-34 AVERAGE CLIMATIC RANGE

Time allowed for completion of entire Project shall include number of calendar days for anticipated delays due to normal weather conditions. No time extension for delays due to weather allowed until and unless such delays exceed claims for extension of time because of abnormal inclement weather. Such extension of time shall be granted only because such abnormal inclement weather prevented execution of major items of Work on normal working days. Weather conditions on a particular day may affect Work on days following the normal weather day. This subsequent delay shall not be considered abnormal and no extension of time will be considered.

The following weather table reflects meteorological data from Midland-Odessa area and will be used to determine Contract time extensions due to abnormally inclement weather. For purposes of this Contract,

"abnormally inclement weather" is interpreted as number of days more than normal number of days on which rainfall exceeds 0.01 inch, or snow/ice pellets exceed 1.0 inch. Extensions of time to complete Work will be based on calendar days and granted by monthly account. No "rain days" unused for previous months may be carried over or accountable for future periods of time.

| WEATHER TABLE | | |
|---|---|---|
| **MONTH** | **MEAN NO. OF RAIN DAYS[1]** | **MEAN NO. OF SNOW/ICE PELLETS DAYS[2]** |
| January | 3 | 0 |
| February | 3 | 0 |
| March | 4 | 0 |
| April | 3 | 0 |
| May | 5 | 0 |
| June | 5 | 0 |
| July | 4 | 0 |
| August | 5 | 0 |
| September | 7 | 0 |
| October | 3 | 0 |
| November | 3 | 0 |
| December | 3 | 0 |
| **TOTAL** | **48** | **0** |

[1] Mean number of days' rainfall, 0.01 inch or more.
[2] Mean number of days' 1.0 inch or more.
* Less than 0.5 inch.

Table based on information reported from MAF, Midland, Texas.
Latitude 31 degrees, 56 minutes N Longitude, 102 degrees 12 minutes W, elevation (ground) 2,862 feet.
Means are based on records covering 10 years from 2012-2021.

SP-35 SUBSTANTIALLY COMPLETE

In various specifications "Substantially Complete" is used. Definition shall be:

> "Substantially complete shall occur at time Work to be completed is complete as specified and Owner accepts/occupies facility/improvement. All equipment shall have been completely installed, tested, ready for Owner acceptance and use, and accepted by Owner before Work is defined as substantially complete."

SP-36 SUBMITTALS

Transmit each submittal with Contractor-standard transmittal letter including Contractor name, address, and phone number. Identify Project, Contractor, subcontractor, or supplier, pertinent Drawing sheet and detail number(s), and Specification Section number, as appropriate. Apply Contractor stamp, signed/initialed certifying review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, are in accordance with requirements of Work and Contract Documents. Schedule submittals to expedite Project and deliver to Parkhill via the Procore website (except for product samples mailed to Parkhill's physical address). Coordinate submission of related items. Identify variations from Contract Documents and product/system limitations detrimental to successful performance of completed Work. Parkhill Project Assistant (PASS) shall distribute reviewed submittals to concerned parties via the Procore website instructing parties to promptly report any inability to comply with provisions. Process/format as follows:

- Digitally upload all submittals using PDF file extension. Each submittal shall be a single PDF file including transmittal letter. Multiple files for the same submittal will not be accepted.

- Submittals in any other format, including ZIP files, will be rejected.
- Hard copies will not be accepted.
- To ensure each page is legible, PDF pages of Drawings shall be same size/scale as a hard copy. Where applicable, provide scale symbols to indicate scale. Illegible submittals will be rejected.
- Upload submittals to the Parkhill Procore website.

Submittal procedures described herein apply to Construction Progress Schedule, Products List, Shop Drawings, Product Data, Samples (actual samples to submit, not digital files), Design Data, Test Reports, Certificates, Manufacturer Instructions and Field Reports, and other types of submittal submitted to Parkhill. Submittals shall include but not necessarily limited to:

- Preliminary CPM Contractor's construction schedule.
- Detailed lighting plan for night Work (if applicable).
- Contractor's list of emergency names and phone number.
- Video and/or written report of existing facilities conditions documenting inspection results performed before start of Work.
- List of subcontractors and material suppliers with experience statement.
- Certified payroll reports and statement of compliance from Contractor and all subcontractors (submitted directly to Airport Accountant).
- Disadvantaged Business Enterprise (DBE) utilization reports (submitted with monthly pay applications).
- Three-week lookahead Project schedule (at weekly construction meetings).
- Contractor Quality Control Plan (submitted by preconstruction meeting).
- Other submittals noted in Appendix C of Construction Management Plan (CMP).
- Contractor affidavit regarding settlement of claims (closeout request).
- Original affidavit acknowledging all subcontractors, material suppliers, payrolls, bill for materials and equipment, and other indebtedness connected with Contract have been paid or otherwise satisfied (closeout request).
- Original with notary signature, full and final release and waiver on liens from Contractor, each subcontractor, and material suppler that documents that are been paid in full (closeout request).
- Warranty (due at Final Completion).
- Maintenance and operating instructions of new equipment.

SP-37 GEOTECHNICAL INFORMATION

No geotechnical reports for this Project are available.

SP-38 SOVEREIGN IMMUNITY

By executing this Contract, Owner is not waiving its right to sovereign immunity. Owner is retaining immunity from suit. Owner is not granting consent to be sued by legislative resolution or action.

THERE IS NO WAIVER OF SOVEREIGN IMMUNITY.

SP-39 GOVERNING LAW AND VENUE

This Contract shall be governed by laws of the State of Texas. All performance and payment made pursuant to this Contract shall be deemed to have occurred in Midland County, Texas. Exclusive venue for any claims, suits, or other action arising from or connected in any way to this Contract or performance of this Contract shall be in Midland County, Texas. Obligations and undertakings of each party to this Contract shall be deemed to have occurred in Midland County, Texas. This Contract shall be governed by, interpreted, enforced, and construed under the law of the State of Texas. Laws of the State of Texas shall govern, construe, and enforce all rights and duties of parties, including but not limited to tort claims and all

Contractual claims or disputes, arising from or relating in any way that would direct application of laws of another jurisdiction.

SP-40 THIRD-PARTY BENEFICIARY

This Contract does not create a third-party beneficiary nor is there a third-party beneficiary to this Contract. No person/entity not a party to this Contract shall have any third-party beneficiary or other rights hereunder.

SP-41 RELEASES

**NOTWITHSTANDING ANY OTHER PROVISIONS, Contractor hereby releases, acquits, RELINQUISHES, and forever discharges OWNER, Owner's employees and officers, and PARKHILL, and its employees and officers, from any and all demands, claims, DAMAGES, or causes of action of any kind whatsoever which Contractor has/might have including but not limited to BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER DUE PROCESS AND TAKINGS CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS, OR OWNER NEGLIGENCE.**

SP-42 INDEPENDENT CONTRACTOR

It is expressly understood and agreed that Contractor shall perform all work and services described herein as an independent contractor and not as an officer, agent, servant, or employee of Owner; that Contractor shall have exclusive control of and exclusive right to control details of services and work performed hereunder, and all persons performing the same; and shall be solely responsible for acts and omissions of its officers, agents, employees, contractors and subcontractors; that the doctrine of respondent superior shall not apply as between owner and Contractor, its officers, agents, employees, contractors and subcontractors; and that nothing herein shall be construed as creating a partnership or joint enterprise between Owner and Contractor. No person performing any work and services described hereunder by Contractor shall be considered an officer, agent, servant, or employee of Owner. Further, it is specifically understood and agreed that nothing in this contract is intended or shall be construed as creating a "Community of Pecuniary Interest" or "An Equal Right of Control" which would give rise to vicarious liability. Contractor shall be an independent contractor under this Contract and shall assume all rights, obligations, and liabilities applicable to it as such independent contractor. Owner does not have the power to direct the order work is done. Owner shall not have the right to control means, methods, or details of Contractor's work. Contractor shall assume exclusive responsibility for work. Contractor is entirely free to do work in its own way.

SP-43 NOTICE OF ALLEGED BREACH; STATUTORY PREREQUISITES

As a condition precedent to filing suit for alleged damages incurred by an alleged breach of an express or implied provision of this Contract, Contractor or legal representative shall give City Manager, or other reasonable official of Owner, notice in writing (consisting of one original and seven copies of notice attached to Contract) of such damages, duly verified, within 150 days after same has been sustained. Discovery rule does not apply to giving this notice. Notice shall include when, where, and how damages occurred, apparent extent thereof, amount of damages sustained, amount for which Contractor will settle, physical and mailing addresses of Contractor at time and date claim was presented as well as physical and mailing addresses of Contractor for six months immediately preceding occurrence of such damages, and names and addresses of witnesses upon whom Contractor relies to establish claim. Failure to notify City Manager within time and manner provided herein shall exonerate, excuse, and except Owner from any liability whatsoever. Owner is under no obligation to provide notice to Contractor that Contractor's notice

is insufficient. Owner reserves the right to request reasonable, additional information regarding claim. Said additional information shall be supplied within 30 days after receipt of notice.

Statutory prerequisites outlined herein constitute jurisdictional requirements pursuant to Section 271.154 of the Texas Local Government Code and Section 311.034 of the Texas Government Code. Notwithstanding another provision, Contractor failure to comply with requirements herein shall perpetually bar Contractor's claim for damages under Chapter 271 of the Texas Local Government Code, and Section 311.034 of the Texas Government Code, regardless if Owner has actual/constructive notice/knowledge of said claim or alleged damages. Contractor agrees requirements of this entire Contract are reasonable.

SP-44 ASSIGNMENT

Contractor shall not directly/indirectly assign all/any part of this Contract or any interest, right, or privilege herein, without prior written consent of Owner. Owner has the sole discretion on whether to grant consent to an assignment.

SP-45 WAIVER OF ATTORNEY FEES

BY EXECUTING THIS CONTRACT, CONTRACTOR AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY, AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST OWNER, REGARDING AWARD OF ATTORNEY FEES, WHICH ARE IN ANY WAY RELATED TO CONTRACT OR CONSTRUCTION, INTERPRETATION, OR BREACH OF CONTRACT. CONTRACTOR SPECIFICALLY AGREES IF CONTRACTOR BRINGS/COMMENCES ANY LEGAL ACTION/PROCEEDING RELATED TO THIS CONTRACT, CONSTRUCTION, INTERPRETATION, VALIDITY, OR BREACH OF CONTRACT INCLUDING BUT NOT LIMITED TO ANY ACTION PURSUANT TO PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET. SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, CONTRACTOR AGREES TO ABANDON, WAIVE, AND RELINQUISH ALL RIGHTS TO RECOVERY OF ATTORNEY FEES TO WHICH CONTRACTOR MIGHT OTHERWISE BE ENTITLED.

CONTRACTOR AGREES THIS IS A VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY EXISTING KNOWN RIGHT. CONTRACTOR ACKNOWLEDGES AN UNDERSTANDING OF ALL TERMS AND CONDITIONS OF CONTRACT. CONTRACTOR FURTHER ACKNOWLEDGES AND AGREES THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN OWNER AND CONTRACTOR. THIS SECTION SHALL NOT BE CONSTRUED/INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.

CONTRACTOR AND OWNER ARE RELYING ON THEIR OWN JUDGMENT. EACH PARTY HAD THE OPPORTUNITY TO DISCUSS THIS CONTRACT WITH COMPETENT LEGAL COUNSEL PRIOR TO EXECUTION.

SP-46 PROMPT PAY ACT

Owner and Contractor agree Texas Government Code, Chapter 2251, Payment for Goods and Services (the "Prompt Pay Act") does not waive governmental immunity.

SP-47 PAYMENT

After Contractor completes all Work including all Change Orders altering original scope, amount of

said Contract are completed, and Owner inspected and approved that Work is completed and in compliance with Contract and all subsequent Change Orders, Owner may thereafter issue payment to Contractor in amount of Contract and all Change Orders. Owner shall be the final judge of when Contractor completes Work. Owner, at sole discretion, shall determine if Work under Contract and under any Change Orders was done to Owner requirements. Owner may make periodic payments to Contractor; however, such periodic payments may only be made pursuant to this Article and only after all Work and Change Orders are completed by Contractor and approved by Owner.

SP-48 PROJECT CLOSEOUT

Approval of final payment to Contractor is contingent upon completion and submittal of items listed below. Final payment not approved until Parkhill approves Contractor's final submittal. Contractor shall:

- provide two copies of all manufacturer warranties specified for materials, equipment, and installations.
- provide weekly payroll records (not previously received) from General Contractor and all subcontractors.
- complete final cleanup. Upon completion of Work and before acceptance and final payment is made, Contractor shall remove from site all machinery, equipment, surplus and discarded materials, rubbish, temporary structures, and stumps or portions of trees. Contractor shall cut all brush and woods within limits indicated and leave site neat and presentable. Material cleared from site and deposited on adjacent property will not be considered as having been disposed satisfactorily unless Contractor obtained written permission of such property owner.
- complete all punch list items identified during Final Inspection.
- provide complete release of all claims for labor and material arising out of Contract.
- provide a certified statement signed by subcontractors indicating actual amounts paid to Disadvantaged Business Enterprise (DBE) subcontractors and/or suppliers associated with Project.
- return copies of sales tax completion forms when applicable per state requirements.
- provide manufacturer certifications for all items incorporated in Work.
- make all required Record, As-Built, or As-Constructed Drawings available.
- deliver Project Operation and Maintenance (O&M) Manual(s).
- provide Security for Construction Warranty.
- submit equipment commissioning documentation, if required.

SP-49 DISCLOSURE OF INTERESTED PARTIES

Successful proposer will be required to complete Texas Ethics Commission Form 1295 – Certificate of Interested Parties and submit completed form with executed Contracts for Project. Complete Form 1295 online at the Texas Ethics website: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

Parkhill will email links to Contractor with an explanation once Contract is awarded. Contractor is responsible for completing form, printing, and submitting along with all other required Contract documents.

SP-50 PARKHILL/RPR AUTHORITY AND DUTY

Parkhill nor RPR shall supervise, direct, or have control over Contractor's Work nor have any responsibility for construction means, methods, techniques, sequences, or procedures selected by Contractor nor for Contractor's safety precautions or programs in connection with Work. These rights and responsibilities are solely those of Contractor in accordance with Contract Documents.

Parkhill nor RPR shall be responsible for any acts/omissions of Contractor, subcontractor, entity performing any portions of Work, or agents or employees of any of them. Parkhill nor RPR guarantee Contractor performance nor are responsible for Contractor's failure to perform Work in accordance with Contract Documents or any applicable laws, codes, rules, or regulations.

## SP-51 ANTI-BOYCOTT STATUTES

To the extent that Sections 2271.002 and 2274.002 of the Texas Government Code (collectively, the "Anti-Boycott Statutes") apply to this Contract, Contractor hereby verifies:

- that Contractor does not boycott Israel and will not boycott Israel during the term of this Contract;
- that Contractor does not boycott energy companies and will not boycott energy companies during the term of this Contract; and
- that Contractor does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of this Contract against a firearm entity or firearm trade association.

To the extent that the Anti-Boycott Statutes do not apply to this Contract, such verification is not required, and Contractor shall be deemed to have not made such verification.

END OF DOCUMENT

## GENERAL CONDITIONS OF CONTRACT

GC-01. OWNER

When "Owner," "Party of the First Part," or "First Party" are used in Contract Documents, it shall refer to Owner as described in Contract.

GC-02. CONTRACTOR

When "Contractor," "Party of the Second Part," or "Second Party," are used, it shall mean person(s), co-partnership, or corporation so defined in Contract who agreed to perform Work embraced in this Contract, or to legal representatives.

GC-03. ARCHITECT/ENGINEER

When "Architect/Engineer" is used in this Contract, it shall refer to Parkhill, Architect/Engineer of Owner, or such other Architect/Engineer, supervisor, or inspector, as authorized by said Owner, to act as Owner's representative with respect to services performed or furnished by Architect/Engineer.

GC-04. CONTRACT DOCUMENTS

Contract Documents shall consist of Notice to Bidders (Advertisement), Instructions to Bidders, Proposal, signed Contract, Performance Bond, Payment Bond, General Conditions of the Contract, Special Provisions, Technical Specifications, Plans, and all modifications thereof incorporated in any documents before execution of Contract.

Contract Documents are complementary and called for by any one person/entity shall be as binding as if called for by all. In case of conflict between Contract Documents, priority of interpretation shall be in the following order:

1. Signed Contract,
2. Performance Bond,
3. Special Bonds (if any),
4. Proposal,
5. Special Provisions,
6. Notice to Bidders,
7. Instructions to Bidders,
8. Technical Specifications,
9. Plans, and
10. General Conditions of the Contract.

GC-05. SUBCONTRACTOR

"Subcontractor," as employed herein, includes only those with a direct contract with Contractor and includes one who furnished material worked to a special design according to plans or Specifications of this Work but does not include one who merely furnished material not so worked.

GC-06. WRITTEN NOTICE

Written notice shall be deemed to be duly served if delivered in person to individual, member of firm, or officer of corporation intended, or if delivered/sent by registered mail to last business address known.

GC-07. WORK

Unless otherwise stipulated, Contractor shall provide and pay for all materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, water, light, power, fuel, transportation, and other facilities necessary for execution and completion of Work covered by Contract Documents. Unless otherwise specified, all materials shall be new and both workmanship and materials of good quality.


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Contractor shall, if required, furnish satisfactory evidence as to kind and quality of materials. Materials or Work described in words shall have a well-known technical or trade meaning and held to refer to such recognized standards.

GC-08. DELETED

GC-09. DELETED

GC-10. LAYOUT OF WORK

Except as specifically provided herein, Contractor shall be responsible for laying out all Work and accomplish Work as acceptable to Architect/Engineer. Architect/Engineer will check Contractor's layout of all major structures and other layout work done by Contractor at Contractor request, but this check does not relieve Contractor of responsibility of correctly locating all Work in accordance with Plans and Specifications.

GC-11. ARCHITECT/ENGINEER AUTHORITY AND DUTY

Unless otherwise specified, it is mutually agreed between parties to this Contract that Architect/Engineer will observe quality and progress of Work at various times. To prevent delays, disputes, and discourage litigation, it is further agreed Architect/Engineer shall, in all cases, determine amounts and quantities of several kinds of Work paid under this Contract. He shall determine all questions in relation to said Work and construction thereof, and in all cases, decide every question which may arise relative to execution of this Contract on part of said Contractor. Architect/Engineer estimates and findings shall be conditions precedent to right of parties hereto to any action of Contract, and any rights of Contractor to receive any money under this Contract; provided, however, should Architect/Engineer render any decision or give any direction, which in the opinion of either party hereto, is not in accordance with meaning and intent of this Contract, either party may file with said Architect/Engineer within 30 days, written objection to decision/direction so rendered. Contract intent is for there to be no delay in execution of Work; therefore, written decisions/directions of Architect/Engineer as rendered shall be promptly carried out and any claim arising therefrom shall be thereafter adjusted as hereinafter provided.

Architect/Engineer shall, within a reasonable time, render and deliver to both Owner and Contractor, a written decision on all claims of parties hereto and all questions which may arise relative to execution of Work or interpretation of Contract, Specifications, and Plans. Should Architect/Engineer fail to make such decision within a reasonable time, an appeal may be taken as if decision was rendered against party appealing.

When "directed," "required," "permitted," "designated," "considered necessary," "prescribed," "approval," "acceptable," "satisfactory," or words of like import are used, it is understood direction, requirement, permission, order, designation, prescription, approved by, acceptable, or satisfactory of Architect/Engineer is intended.

In Specifications or Drawings accompanying this Contract, terms of description of various qualities relative to finish, workmanship, or other qualities of similar kind which cannot, from their nature, be specifically and clearly described and specified, but necessarily described in general terms, fulfillment of which must depend on individual judgment, in all such cases, any question of fulfillment of said Specifications shall be decided by Architect/Engineer, and said work done in accordance with interpretations of meaning of words, terms, or clauses defining character of Work.

GC-12. SUPERINTENDENCE AND PROJECT REPRESENTATION

It is agreed by Contractor that Architect/Engineer may appoint such subordinate engineers, supervisors, or project representatives as Architect/Engineer may deem proper to inspect material furnished and Work done under this Contract, see said material is furnished and done in accordance with


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Specifications therefor. Contractor shall furnish all reasonable aid and assistance required by subordinate engineers, supervisors, or project representatives for proper inspection and examination of Work. Contractor shall regard and obey directions and instructions of any subordinate engineers, supervisors, or project representatives so appointed when such directions and instructions are consistent with obligations of this Contract and accompanying Plans and Specifications, provided; however, should Contractor object to any orders by any subordinate engineer, supervisor, or project representative, Contractor may, within six days, make written appeal to Architect/Engineer for his decision.

GC-13. CONTRACTOR DUTY AND SUPERINTENDENCE

Contractor shall give personal attention to faithful prosecution and completion of this Contract and keep on Work, during progress, competent superintendent, and any necessary assistants all satisfactory to Architect/Engineer. Superintendent shall represent Contractor when absent and all directions given shall be as binding as if given to Contractor. Adequate supervision by competent and responsible Contractor representatives is essential to proper performance of Work and lack of such supervision shall be grounds for suspending Contractor operations. Confirm important directions in writing to Contractor. Confirm other directions on written request in each case.

GC-14. CONTRACTOR UNDERSTANDING

It is understood and agreed that Contractor is, by careful examination, satisfied as to nature and location of Work, confirmation of ground, character, quality, and quantity of materials to be encountered, character of equipment and facilities needed preliminary to and during prosecution of Work, general and local conditions, and all other matters which can in any way affect Work under this Contract. No verbal agreement or conversation with any officer, agent, or employee of Owner, either before or after execution of this Contract, shall affect or modify any terms or obligations herein contained.

GC-15. CHARACTER OF WORKERS

Contractor agrees to employ orderly and competent employees, skillful in performance of work required under this Contract, to do Work; and agrees whenever informed by Architect/Engineer in writing, any employee(s) on Work are, in Architect/Engineer opinion, incompetent, unfaithful, or disorderly, such employee(s) shall be discharged from Work and not again employed on Work without Architect/Engineer's written consent.

GC-16. CONTRACTOR BUILDINGS

Building structures for housing employees, erecting tents, or other forms of protection will be permitted only at such places as Architect/Engineer shall direct, and sanitary conditions of grounds in or about such structures shall always be maintained as satisfactory to Architect/Engineer.

GC-17. SANITATION

Contractor shall construct and maintain necessary sanitary conveniences for use of laborers on work, properly secluded from public observation, approved by Architect/Engineer, and use strictly enforced.

GC-18. SHOP DRAWINGS

Contractor shall submit to Architect/Engineer with such promptness as to cause no delay in work of any Contractor, Shop/Setting Drawings and schedules required for Work of various trades, and Architect/Engineer shall pass upon them with reasonable promptness, making required corrections. Architect/Engineer approval of such Drawings or schedules, shall not relieve Contractor from responsibility for deviations from Drawings or Specifications, unless Architect/Engineer called attention to, in writing, such deviations at time of submission nor relieve Contractor from responsibility for errors of any sort in Shop Drawings or schedules.

GC-19. PRELIMINARY APPROVAL

Architect/Engineer shall not have power to waive obligations of this Contract for furnishing by Contractor of good material, and performing good work as herein described, and full accordance with Plans and Specifications. No failure or omission of Architect/Engineer to condemn any defective work or material shall relieve Contractor from obligations to tear out, remove, and properly replace same at any time prior to final acceptance upon discovery of said defective work or material, provided; however, Architect/Engineer shall, upon request of Contractor, inspect, accept, and/or reject any material furnished, and in event material was once accepted by Architect/Engineer, such acceptance shall be binding on Owner, unless clearly shown such material furnished does not meet specifications for this work. Any questioned work may be ordered taken up or removed for Architect/Engineer to re-examine, prior to final acceptance, and, if found not in accordance with Specifications for said work, all expense of removing, re-examination, and replacement shall be borne by Contractor, otherwise expense thus incurred shall be allowed as Extra Work and paid for by Owner, provided, where inspection or approval is specifically required by Specifications prior to performance of certain work, should Contractor proceed with such work without requesting prior inspection or approval, Contractor shall bear all expense of taking up, removing, and replacing work if so directed by Architect/Engineer.

GC-20. DEFECTS AND REMEDIES

It is further agreed if Work or any part thereof, or any material brought on site of Work for use in Work or selected for same, shall be deemed by Architect/Engineer as unsuitable or not in conformity with Specifications, Contractor shall, after receipt of written notice thereof from Architect/Engineer, forthwith remove such material and rebuild or otherwise remedy such work for full accordance with this Contract.

GC-21. CHANGES AND ALTERATIONS

Contractor further agrees Owner may make such changes and alterations as Owner sees fit, in line, grade, form, dimensions, plans, or materials for Work herein contemplated, or any part thereof, before or after beginning construction without affecting validity of this Contract and accompanying performance bond.

If such changes or alterations diminish quantity of Work to do, they shall not constitute basis for a claim for damages, or anticipated profits on Work that may be dispensed with, except as provided for unit price items under "Estimated Quantities." If amount of Work is increased or decreased, and Work can fairly be classified under Specifications, price adjustment for such increase or decrease shall be made according to quantity actually done and at unit price, if any, established for such work under this Contract, except as provided for unit price items under "Estimated Quantities;" otherwise, price adjustment for such changed work shall be made as provided under Extra Work. In case Owner shall make such changes or alterations as useless any material already done or material already furnished or used, Owner shall recompense Contractor for any material or labor so used, and any actual loss occasioned by such change, due to actual expense incurred in preparation as originally planned.

GC-22. RIGHT OF ARCHITECT/ENGINEER TO MODIFY METHODS AND EQUIPMENT

If at any time, methods or equipment used by Contractor are found inadequate to secure quality of Work or rate of progress required under this Contract, Architect/Engineer may order Contractor, in writing, to increase safety or improve character and efficiency, and Contractor shall comply with such order.

If at any time, Working force of Contractor is inadequate for securing progress herein specified, Contractor shall, if so ordered in writing, increase his force or equipment, or both, to such an extent as to give reasonable assurance of compliance with schedule of progress.

GC-23. KEEPING PLANS AND SPECIFICATIONS ACCESSIBLE

Architect/Engineer shall furnish Contractor with an adequate and reasonable number of copies of all Specifications without additional expense, and Contractor shall keep one copy of same constantly accessible on Work, with latest revisions noted thereon.

GC-24. OWNERSHIP OF DRAWINGS

All Drawings, Specifications, and copies thereof furnished by Architect/Engineer shall not be reused on other work, and with exception of signed contract sets, are returned to him on request, at completion of Work. All models are property of Owner.

GC-25. ADEQUACY OF DESIGN

It is understood Owner employed competent engineers and designers. It is, therefore, agreed Owner shall be responsible for adequacy of design, sufficiency of Contract Documents, safety of structure, and practicability of operations of completed Project, provided Contractor complied with requirements of said Contract Documents, all approved modifications thereof, additions, and alterations thereto approved in writing by Owner. Burden of proof of such compliance shall be upon Contractor to show compliance with said requirements of Contract Documents, approved modifications thereof, and all approved additions and alterations thereto.

GC-26. RIGHT OF ENTRY

Owner reserves the right to enter property or location on which Work herein contracted for are to be constructed or installed, by such agent(s) as elected, to supervise and inspect Work, or construct or install such collateral work as said Owner may desire.

GC-27. COLLATERAL CONTRACTS

Owner agrees to provide by separate contract or otherwise, all labor and material essential to completion of Work specifically excluded from this Contract, not delaying progress of Work, or damage said Contractor, except where such delays are specifically mentioned elsewhere in Contract Documents.

GC-28. DISCREPANCIES AND OMISSIONS

It is further agreed the intent of this Contract is all work must be done and material furnished in accordance with generally accepted practice, and in the event of any discrepancies between separate Contract Documents, priority of interpretation defined under "Contract Documents" shall govern. In the event of a remaining doubt as to meaning and intent of any portion of Contract, Specifications, or Drawings, Architect/Engineer shall define which is intended to apply to Work.

GC-29. DELETED

GC-30. PROTECTION AGAINST ACCIDENT TO EMPLOYEES AND THE PUBLIC

Contractor shall take out and procure a policy of worker compensation with an insurance company licensed to transact business in the State of Texas, which policy shall comply with Workman's Compensation Law of the State of Texas. Contractor shall always exercise reasonable precautions for the safety of employees and others on/near Work and comply with all applicable provisions of Federal, State, and Municipal safety laws and building and construction codes. All machinery, equipment, and other physical hazards shall be guarded in accordance with the "Manual of Accident Prevention in Construction" of the Associated General Contractors of America except where incompatible with Federal, State, or Municipal laws or regulations. Contractor, sureties, and insurance carriers shall defend, indemnify, and save harmless Owner and all officers, agents, employees, Architect/Engineer, agents, and employees from all suits, actions, or claims of any character, name, and description brought for or on account of any injuries or damages received or sustained by any persons/property, on account of any negligent act or fault of Contractor or any subcontractor, agents, or employees, in execution and supervision of said Contract and Project of this Contract or on account of Contractor or any subcontractor failure to provide necessary

barricades, warning lights, or signs, and will be required to pay any judgment with costs obtained against Owner or any officers, agents, or employees, and/or Architect/Engineer, agents, and/or employees.

Safety precautions taken shall be sole responsibility and discretion of Contractor, as an independent contractor; inclusion of this paragraph in Contract, as well as any notice given by Owner, Architect/Engineer, or representatives concerning omissions under this article as Work progresses, are intended only as reminders to Contractor of duty and not construed as any assumption of duty to supervise safety precautions by Owner or Architect/Engineer.

GC-31. CONTRACTOR INSURANCE

Contractor shall procure and carry, at sole cost and expense, throughout life of Contract, insurance protection as hereinafter specified. All Insurance shall name Owner and Architect/Engineer as additional insureds except Worker's Compensation and Employer Liability Insurance. Such insurance shall be carried with an insurance company licensed to transact business in the State of Texas and cover all operations in connection with this Contract. Contractor insurance shall cover self and, at minimum, all subcontractors and sub-subcontractors. All other sublevels of contractors shall provide copies of proof of insurance if not covered by General Contractor.

Contractor shall provide a Waiver of Subrogation in favor of City of Midland and Parkhill on Worker's Compensation, Employer Liability Insurance, Contractor's Public Liability, Property Damage Liability Insurance, and Automobile Insurance.

a. Worker's Compensation and Employer Liability Insurance: As required by statute, covering all employees employed on Work whether employed by Contractor or subcontractor.
b. Contractor's Public Liability and Property Damage Liability Insurance: Providing for a limit not less than $1,000,000.00 for all damages arising out of bodily injuries to or death of one person, and subject to that limit for each person, a total limit of $1,000,000.00 for all damages arising out of bodily injuries to or death of two or more persons in any one accident, and regular Contractor's Property Damage Liability Insurance providing for a limit of not less than $1,000,000.00 for all damages arising out of injury to or destruction of property in any one accident, and subject to that limit per accident, a total (or aggregate) limit of $2,000,000.00 for all damages arising out of injury to or destruction of property during policy period.
c. Automobile Insurance: Providing a limit not less than $1,000,000.00 for injuries, including accidental death, to any one person and, subject to same limit for each person a total limit of $2,000,000.00 on account of one accident, and automobile property damage insurance in an amount not less than $500,000.00.
d. Proof of Insurance Carriage: Before work on any contract or subcontract, each Contractor and subcontractor shall submit to Owner for approval, six certificates covering each insurance policy carried and offered as evidence of compliance with requirements, signed by an authorized representative of the insurance company, setting forth:
    1. Name and address of insured;
    2. Location of operations to which insurance applies;
    3. Number of policy and type(s) of insurance in force thereunder on date borne by such certificate;
    4. Expiration date of policy and limit(s) of liability thereunder on date borne by such certificate;
    5. Statement that insurance of type afforded by policy, applied to all operations of whatever character, undertaken by insured during performance of this Contract, provided such operations are required in performance of Contract; and

6. Provision that policy may be cancelled only by mailing written notice to named insured at address shown in this policy stating when, not less than 10 days thereafter, cancellation of such policy shall be effective, with copy to Owner of letter of intent.

GC-32. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

It is hereby understood and mutually agreed by and between Contractor and Owner, date of beginning and time for completion as specified in Contract of Work to be done hereunder, are ESSENTIAL CONDITIONS of this Contract; and further mutually understood and agreed Work embraced in this Contract shall be commenced on a date to be specified in "Notice to Proceed."

Contractor agrees said Work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will ensure full completion thereof within time specified. It is expressly understood and agreed, by and between Contractor and Owner, time for completion of Work described herein is a reasonable time for completion of same, taking into consideration average climatic range and usual industrial conditions prevailing in this locality.

If said Contractor shall neglect, fail, or refuse to complete Work within time herein specified, or any proper extension thereof granted by Owner, Contractor does hereby agree, as a part consideration for awarding this Contract, to pay to Owner amount specified in Contract, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each calendar day Contractor shall be in default after time stipulated in Contract for completing Work.

Said amount is fixed and agreed upon by and between Contractor and Owner because of impracticability and extreme difficulty of fixing and ascertaining actual damages Owner would in such event sustain, and said amount is agreed to be amount of damages Owner would sustain and said amount retained as necessary by Owner from current periodical estimates.

It is further agreed time is of the essence of every portion of this Contract and Specifications wherein a definite and certain length of time is fixed for performance of any act whatsoever; and where under Contract an additional time is allowed for completion of any work, new time limit fixed by such extension shall be of the essence of this Contract. Provided, Contractor shall not be charged with liquidated damages or any excess cost when Owner determines Contractor is without fault and Contractor's reasons for time extension are acceptable to Owner; Provided, further, Contractor shall not be charged with liquidated damages of any excess cost when delay in completion of Work is due:

a. To any preference, priority, or allocation order duly issued by the Government;
b. To unforeseeable cause beyond Contractor control and without fault or negligence including but not restricted to acts of God or public enemy, acts of Owner, acts of another Contractor in performance of contract with Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and severe weather; and
c. To any delays of subcontractors/suppliers occasioned by any cause specified in (a) and (b) of this article:

Provided further, Contractor shall, within 10 days from beginning of such delay, unless Owner shall grant a further time prior to date of final settlement of Contract, notify Owner in writing of causes of delay, who shall ascertain facts and extent of delay and notify Contractor within a reasonable time of decision in the matter.

GC-33. PRICE FOR WORK

In consideration of furnishing all necessary labor, equipment, and material and completion of all work by Contractor, and on delivery of all material embraced in this Contract in full conformity with Specifications and stipulations herein contained, Owner agrees to pay Contractor prices set forth in Proposal hereto attached, made a part of this Contract, and Contractor hereby agrees to receive such prices in full for furnishing all material and labor required for aforesaid Work, also for all expenses incurred, and well and truly performing same and whole thereof in the manner and according to this Contract, Specifications, Drawings, and requirements of Architect/Engineer.

GC-34. BONDS

It is further agreed by parties to this Contract that Contractor will execute bonds in sum of 100 percent of total contract price for satisfactory performance of Work and payment of all labor, materials, and equipment in accordance with this Contract on forms provided for this purpose, executed by an approved surety company authorized to do business in the State of Texas, and agreed this Contract shall not be in effect until such bonds are furnished and approved by Owner. Performance and Payment Bonds shall comply with Chapter 2253 of the Texas Government Code.

GC-35. LOSSES FROM NATURAL CAUSES

Unless otherwise specified, all loss or damage to Contractor arising out of the nature of Work to be done, action of elements, any unforeseen circumstances in prosecution of same, or unusual obstructions/difficulties encountered in prosecution of Work, shall be sustained and borne by Contractor at own expense.

GC-36. PROTECTION OF ADJOINING PROPERTY

Said Contractor shall take proper means to protect adjacent/adjoining property/properties, in any way encountered, which might be injured/seriously affected by any process of construction undertaken under this Contract, from any damage/injury by reason of said process of construction; and shall be liable for any/all claims for such damage on account of failure to fully protect all adjoining property. Contractor agrees to indemnify, save, and hold harmless Owner against any claim(s) for damages due to any injury to any adjacent or adjoining property, arising/growing out of performance of Contract, but any such indemnity shall not apply to any claim of any kind arising out of existence or character of Work.

GC-37. PROTECTION AGAINST SUBCONTRACTOR, LABORER, MATERIALMEN AND FURNISHER OF MACHINERY, EQUIPMENT, AND SUPPLY CLAIMS

Contractor agrees to indemnify and save Owner harmless from all claims growing out of lawful demands of subcontractors, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in furthering the performance of this Contract. When so desired by Owner, Contractor shall furnish satisfactory evidence that all obligations of nature herein designated, have been paid, discharged, or waived. If Contractor fails, Owner may, at Contractor option, pay directly any unpaid bills, of which Owner has written notice, or withhold from Contractor's unpaid compensation a sum of money deemed reasonably sufficient to liquidate any/all such lawful claims until satisfactory evidence is furnished that all liabilities were fully discharged, whereupon payments to Contractor shall be resumed in full, in accordance with terms of this Contract, but in no event shall provisions of this article be construed to impose any obligations upon Owner by either Contractor or surety.

GC-38. PROTECTION AGAINST ROYALTIES OR PATENTED INVENTION

Contractor shall pay all royalties and license fees and provide use of any design, device, material, or process covered by letters patent or copyright by suitable legal contract with patentee/owner. Contractor shall defend all suits/claims for infringement of any patent/copyrights and indemnify and save Owner harmless from any loss on account thereof, except Owner shall defend all such suits and claims and be responsible for all such loss when a particular design, device, material, or process/product of a particular

manufacturer is specified/required by Owner provided; however, if choice of alternate design, device, material, or process is allowed, Contractor shall indemnify and save Owner harmless from any loss on account of thereof. If material/process specified/required by Owner is an infringement, Contractor shall be responsible for such loss unless promptly giving such information to Owner.

GC-39. LAWS AND ORDINANCES

Contractor shall always observe and comply with all Federal, State, and local laws, ordinances, and regulations, which affect Contractor Work, and indemnify and save harmless Owner against any claims arising from violation of any such laws, ordinances, and regulations by Contractor or employees, except where such violations are called for by provisions of Contract Documents. If Plans and Specifications are at variance therewith, Contractor shall promptly notify Architect/Engineer in writing, and any necessary changes be adjusted as provided in Contract for changes in Work. If Contractor performs any work knowing it to be contrary to such laws, ordinances, rules, regulations, and without such notice to Architect/Engineer, Contractor shall bear all costs arising therefrom. In case Owner is a body politic and corporate law deriving powers, insofar as same regulates objects for which, in manner in which, or conditions under which Owner may enter into contract, shall be controlling, and considered as part of this Contract, to same effect as though embodied herein.

GC-40. ASSIGNMENT AND SUBLETTING

Contractor further agrees to retain personal control and give personal attention to fulfillment of Contract and not assign by Power of Attorney, or otherwise, or sublet said Contract without written consent of Owner, and no part or feature of Work will be sublet to anyone objectionable to Architect/Engineer or Owner. Contractor further agrees subletting of any portion/feature of Work or materials required in performance of this Contract, shall not relieve Contractor from full obligations to Owner, as provided by this Contract.

GC-41. TIME AND ORDER OF COMPLETION

It is the meaning and intent of this Contract, unless otherwise herein specifically provided, Contractor be allowed to prosecute Work at such times and sessions, in such order of precedence and manner most conducive to economy of construction provided; however, order and time of prosecution shall be such that Work shall be substantially completed as a whole or in part, in accordance with this Contract, Plans, and Specifications, and within time of completion designated in proposal; provided also, when Owner is having other work done, by contract or his own force, Architect/Engineer may direct time and manner of constructing Work done under this Contract so conflict will be avoided and construction of various works done for Owner shall be harmonized.

Contractor shall submit, at such times reasonably requested by Architect/Engineer, schedules to show order in which Contractor proposes to carry on Work, with dates at which Contractor will start several parts of Work and estimated dates of completion of several parts.

GC-42. EXTENSION OF TIME

Should Contractor be delayed in completion of Work by any act/neglect of Owner, Architect/Engineer, any employee of either, other contractors employed by Owner, changes ordered in Work, strikes, lockouts, fires, and unusual delays by common carriers, unavoidable cause(s) beyond Contractor's control, or any cause which Architect/Engineer decides justifies delay, an extension of time shall be allowed for completing Work, sufficient to compensate for delay, amount of extension determined by Architect/Engineer, provided, however, Contractor shall give Architect/Engineer prompt notice in writing of cause of such delay.

GC-43. HINDRANCES AND DELAYS

No claims shall be made by Contractor for damages resulting from hindrances/delays from any cause (except where Work is stopped by order of Owner for own convenience) during progress of any portion of Work embraced in this Contract. In case said Work shall be stopped by act of Owner, such expense as in judgment of Architect/Engineer is caused by such stoppage of said Work shall be paid by Owner to Contractor.

GC-44. QUANTITIES AND MEASUREMENTS

No extra or customary measurements of any kind allowed, but actual measured and/or computed length, area, solid contents, number, and weight only considered, unless otherwise specifically provided.

GC-45. ESTIMATED QUANTITIES

This Contract, including Specifications, Plans, and estimate, is intended to clearly show all Work to be done and material furnished hereunder. Where estimated quantities are shown for various classes of work to be done and material furnished under this Contract, they are approximate, used only as a basis for estimating probable cost of Work, and comparing proposals offered for Work. It is understood and agreed the actual amount of Work to be done and material furnished under this Contract may differ somewhat from these estimates, and where basis for payment under this Contract is unit price method, payment shall be for actual amount of such work done and material furnished.

Where payment is based on unit price method, Contractor agrees to make no claim for damages, anticipated profits, or otherwise on account of any differences found between quantities of Work actually done, material actually furnished under this Contract, and estimated quantities contemplated and contained in proposal; provided, however, where actual quantity of any major item in this Contract is an estimated quantity and actual quantity of such "major item" varies more than 25 percent above or below estimated quantity stated in this Contract, an equitable adjustment in Contract price shall be made upon demand of either party. Equitable adjustment shall be based upon any increase/decrease in costs due solely to variation above 125 percent or below 75 percent of estimated quantity.

"Major Item" shall be any individual bid item included in proposal with a total cost equal to or greater than 10 percent of total Contract cost, computed on basis of original bid proposal, quantities, and Contract unit prices.

Any revised consideration is to be determined by agreement between parties, otherwise by terms of this Contract, as provided under "Extra Work."

GC-46. PARTIAL PAYMENTS

On/before the last day of each month, Contractor shall prepare for Architect/Engineer review, a statement showing, as completely as practicable, total value of Work done by Contractor for prior month/period. Statement shall also include value of all sound materials delivered on site of Work to be fabricated into Work. Architect/Engineer, after approval, shall submit Contractor's partial pay application to Owner.

Owner shall then pay Contractor within three working days after receipt of partial payment from applicable governmental authority, total amount of Architect/Engineer's statement, less 5 percent of amount thereof, which 5 percent shall be retained until final payment, and further less all previous payments and all further sums may be retained by Owner under terms of this Contract. It is understood; however, in case whole Work be near to completion and some unexpected and unusual delay occurs due to no fault or neglect on part of Contractor, Owner may, upon Architect/Engineer written recommendation, pay a reasonable and equitable portion of retained percentage to Contractor; or Contractor, at Owner's option,

may be relieved of obligation to fully complete Work, and thereupon, Contractor shall receive payment of balance due under Contract subject only to conditions stated under "Final Payment."

GC-47. USE OF COMPLETED PORTIONS

Owner shall have the right to take possession of and use any completed/partially completed portions of Work, notwithstanding time for completing entire work or such portions may not have expired but such taking possession and use shall not be deemed an acceptance of any work not completed in accordance with Contract Documents. If such prior use increases cost of or delays Work, Contractor shall be entitled to such extra compensation, or extension of time, or both, as Architect/Engineer determines.

GC-48. FINAL COMPLETION AND ACCEPTANCE

Within 20 days after Contractor gives Architect/Engineer written notice that Work is complete, Architect/Engineer and Owner shall inspect Work and within said time, if Work is completed in accordance with Contract Documents, Architect/Engineer shall issue to Owner and Contractor a Certificate of Completion, and thereupon it shall be duty of Owner, within 10 days, to issue a Certificate of Acceptance of Work to Contractor.

GC-49. FINAL PAYMENT

Upon issuance of Certificate of Completion, Architect/Engineer shall proceed to make final measurements and prepare final statement of value of all Work performed and materials furnished under terms of Contract and certify same to Owner, who shall pay Contractor on/before the 20th day after date of Certificate of Completion, or if governmental financial assistance is involved, within 30 working days of receipt of final payment from applicable governmental authority, balance due Contractor under terms of this Contract, provided full performance of contractual obligations under terms of this Contract; and said payment shall become due in any event upon said performance by Contractor. Neither Certificate of Acceptance, final payment, nor any provision in Contract Documents, shall relieve Contractor of obligation for fulfillment of any warranty required in Special Provisions of Specifications.

GC-50. PAYMENT WITHHELD

Owner may, on account of subsequently discovered evidence, withhold/nullify whole/part of any certificate to such extent as necessary for protection from loss on account of:

a. Defective work not remedied;
b. Claims filed or reasonable evidence indicating possible filing of claims;
c. Contractor failure to make payments properly to subcontractors, for material, or labor; and/or
d. Damage to another contractor.

When grounds removed or Contractor provides a Surety Bond satisfactory to Owner to protect Owner in amount withheld, payment shall be made for amounts withheld because of them.

GC-51. DELAYED PAYMENTS

Should Owner fail to pay Contractor of sum named in any partial/final statement, when payment is due, or Architect/Engineer fails to issue any statement on/before date provided, Owner shall pay Contractor, in addition to sum shown as due by such statement, interest thereon at the rate of 6 percent per annum, unless otherwise specified, from date due as provided under "Partial Payments" and "Final Payments," until fully paid, fully liquidating any injury to Contractor growing out of such delay in payment, but right is expressly reserved to Contractor in the event payments not promptly made as provided under "Partial Payments," to at any time thereafter treat Contract as abandoned by Owner and recover compensation, as provided under "Abandonment of Contract," unless such payments are withheld in accordance with provisions of "Payments Withheld."

GC-52. EXTRA WORK

"Extra Work," as used in this Contract, shall mean/include all Work required by Architect/Engineer or Owner done by Contractor to accomplish any change, alteration, or addition to Work shown upon Plans, or reasonably implied by Specifications, and not covered by Contractor's Proposal, except as provided under "Changes and Alterations" herein.

It is agreed Contractor shall perform all Extra Work under Architect/Engineer direction when presented with a written Extra Work Order signed by Architect/Engineer, subject, however, to right of Contractor to require a written confirmation of such Extra Work Order by Owner. It is also agreed compensation to be paid Contractor for performing said Extra Work shall be determined by one or more of the following methods:

Method A - By agreed unit prices; or

Method B - By agreed lump sum; or

Method C - If neither Methods A nor B are agreed upon before Extra Work is commenced, Contractor shall be paid "actual field cost" of Work, plus 15 percent.

In the event said Extra Work be performed and paid for under Method C, provisions of this Article shall apply and "actual field cost" defined to include cost of all workmen such as foremen, timekeepers, mechanics, and laborers, and materials, supplies, teams, trucks, rentals on machinery and equipment, for time actually employed/used on such Extra Work, plus actual transportation charges necessarily incurred, together with all expenses incurred directly on account of such Extra Work, including Social Security, Old Age Benefits, Maintenance Bonds, Public Liability and Property Damage, Workmen's Compensation, and all other insurance as required by any law/ordinance, or directed by Architect/Engineer or Owner, or by them agreed to. Architect/Engineer may direct form in which accounts of "actual field cost" shall be kept and records of these accounts made available to Architect/Engineer. Architect/Engineer may also specify in writing, before Work commences, method of doing Work as well as type and kind of machinery and equipment to be used; otherwise, these matters determined by Contractor. Unless otherwise agreed upon, prices for use of machinery and equipment shall be determined by using 100 percent, unless otherwise specified, of the latest schedule of Equipment Ownership Expense adopted by the Associated General Contractors of America. Where practicable, terms and prices for use of machinery and equipment shall be incorporated in Written Extra Work Order. The 15 percent of "actual field cost" paid Contractor, shall cover and compensate profit, overhead, general superintendence and field office expense, and all other elements of cost and expense not embraced within "actual field cost" as herein defined, save that where Contractor's Camp or Field Office must be maintained primarily on account of such Extra Work, then cost to maintain and operate same shall be included in "actual field cost."

No claim for Extra Work of any kind allowed unless Architect/Engineer orders in writing. In case any oral/written orders/instructions appear to Contractor to involve Extra Work for which compensation or adjustment in construction time should be received, Contractor shall make written request to Architect/Engineer for written order authorizing such Extra Work. Should a difference of opinion arise as to what does/does not constitute Extra Work, or as to payment therefor, and Architect/Engineer insists upon performance, Contractor shall proceed with Work after making written request for written order and keep an accurate account of "actual field cost" thereof, as provided under Method C. Contractor will thereby preserve right to submit matter of payment by filing a claim as herein provided.

GC-53. TIME OF FILING CLAIMS

It is further agreed by both parties hereto, all questions of dispute/adjustment presented by Contractor shall be in writing and filed with Architect/Engineer within 15 days after Architect/Engineer gives any directions, order, or instruction to which Contractor desires to take exception. Architect/Engineer shall reply to such written exceptions by Contractor and render a final decision in writing. In case Contractor should appeal from Architect/Engineer's decision, appeal shall be filed with Architect/Engineer and Owner in writing within 10 days after date of delivery to Contractor of Architect/Engineer's final decision. It is


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further agreed final acceptance of Work by Owner and acceptance by Contractor of final payment, shall be a bar to any claim by either party, except as noted otherwise in Contract Documents.

GC-54. DELETED

GC-55. ABANDONMENT BY CONTRACTOR

In case Contractor should abandon and fail/refuse to resume work within 10 days after written notification from Owner or Architect/Engineer, or Contractor fails to comply with Architect/Engineer orders, when such orders are consistent with Contract Documents, then if where a performance bond exists, Surety on bond shall be notified in writing and directed to complete Work, and a copy of said notice be delivered to Contractor.

After receiving said notice of abandonment, Contractor shall not remove from Work any machinery, equipment, tools, materials, or supplies on the job, but same, together with any materials and equipment under contract for Work, may be held for use on Work by Owner or Surety on construction bond, or another contractor in completion of Work; and Contractor shall not receive any rental/credit therefor (except when used in connection with Extra Work, where credit allowed as provided for under "Extra Work"), it understood use of such equipment and materials will ultimately reduce cost to complete Work and reflected in final settlement.

If no performance bond provided or Surety should fail to commence compliance with notice for completion herein provided for, within 10 days after service of such notice, Owner may provide for completion of Work in either of the following elective manners:

a. Owner may thereupon employ such force of men and use such machinery, equipment, tools, materials, and supplies as Owner deems necessary to complete Work and charge expense of such labor, machinery, equipment, tools, materials, and supplies to Contractor, and expense charged shall be deducted and paid by Owner out of such moneys due or may thereafter any time become due to Contractor under and by virtue of this Contract. In case such expense is less than sum payable under this Contract, if same had been completed by Contractor, then Contractor shall receive the difference. In case such expense is greater than sum payable under this Contract, if same completed by said Contractor, then Contractor and/or Surety shall pay amount of such excess to Owner; or

b. Owner under sealed bids, after five days' notice, published one or more times in a newspaper having general circulation in county of location of Work, may let Contract for completion of Work under substantially same terms and conditions provided in this Contract. In case of any increase in cost to Owner under new contract as compared to what would have been cost under this Contract, such increase shall be charged to Contractor and Surety shall remain bound therefor. However, should cost to complete any such new contract prove less than cost to complete under this Contract, Contractor and/or Surety shall be credited therewith.

When Work shall have been substantially completed, Contractor and Surety shall be so notified and Certificates of Completion and Acceptance, as provided herein, issued. Complete itemized statement of Contract accounts, certified to by Architect/Engineer as correct, shall then be prepared and delivered to Contractor and Surety, whereupon Contractor and/or Surety, or Owner as case may be, shall pay balance due as reflected by said statement, within 15 days after date of such Certificate of Completion.

In the event statement of accounts shows cost to complete Work is less cost to Owner, had Work been completed by Contractor under terms of this Contract; or when Contractor and/or Surety shall pay balance shown due by them to Owner, then all machinery, equipment, tools, materials, or supplies left on site of Work shall be turned over to Contractor and/or Surety. Should cost to complete Work exceed

Contract price and Contractor and/or his Surety fail to pay amount due Owner within time designated herein, and there remains any machinery, equipment, tools, materials, or supplies on site of Work, notice thereof, together with an itemized list of such equipment and materials shall be mailed to Contractor and Surety at respective addresses designated in this Contract, provided; however, actual written notice given in any manner will satisfy this condition. After mailing or other giving of such notice, such property shall be held at risk of Contractor and Surety subject only to duty of Owner to exercise ordinary care to protect such property. After 15 days from date of said notice, Owner may sell such machinery, equipment, tools, materials, or supplies and apply net sum derived from such sale to credit of Contractor and Surety. Such sale may be made at public/private sale, with/without notice, as Owner elects. Owner shall release any machinery, equipment, tools, materials, or supplies, which remain on Work, and belong to persons other than Contractor or Surety, to proper owners. Books on all operations provided herein shall be open to Contractor and Surety.

GC-56. ABANDONMENT BY OWNER

In case Owner shall fail to comply with Contract terms and fail/refuse to comply with said terms within 10 days after written notification by Contractor, Contractor may suspend/wholly abandon Work and remove therefrom all machinery, tools, equipment, and all materials on site of work not included in payments to Contractor and have not been wrought into Work. And thereupon Architect/Engineer shall make an estimate of total amount earned by Contractor, which estimate shall include value of all Work actually completed by said Contractor (at prices stated in attached proposal where unit prices are used), value of all partially completed Work at a fair and equitable price, and amount of all Extra Work performed at prices agreed upon, or provided for by terms of this Contract, and a reasonable sum to cover cost of any provisions made by Contractor to carry whole work to completion and which cannot be utilized. Architect/Engineer shall then make a final statement of balance due Contractor by deducting from estimates all previous payments by Owner and other sums retained by Owner under terms of this Contract and certify same to Owner who shall pay to Contractor on or before 30 days after date of notification by Contractor, balance shown by said final statement as due Contractor, under terms of this Agreement.

"General Decision Number: TX20230002 01/06/2023

Superseded General Decision Number: TX20220002

State: Texas

Construction Types: Heavy and Highway

Counties: Armstrong, Carson, Crosby, Ector, Irion, Lubbock, Midland, Potter, Randall, Taylor and Tom Green Counties in Texas.

HEAVY & HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

| | |
|---|---|
| If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022: | . Executive Order 14026 generally applies to the contract.<br>. The contractor must pay all covered workers at least $16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023. |
| If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022: | . Executive Order 13658 generally applies to the contract.<br>. The contractor must pay all covered workers at least $12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023. |

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

SUTX2011-002 08/02/2011

| | Rates | Fringes |
|---|---|---|
| CEMENT MASON/CONCRETE FINISHER (Paving & Structures) | $ 13.55 ** | |
| ELECTRICIAN | $ 20.96 | |
| FORM BUILDER/FORM SETTER | | |
| Paving & Curb | $ 12.36 ** | |
| Structures | $ 13.52 ** | |
| LABORER | | |
| Asphalt Raker | $ 12.28 ** | |
| Flagger | $ 9.30 ** | |
| Laborer, Common | $ 10.30 ** | |
| Laborer, Utility | $ 11.80 ** | |
| Work Zone Barricade Servicer | $ 10.30 ** | |
| POWER EQUIPMENT OPERATOR: | | |
| Asphalt Distributer | $ 14.87 ** | |
| Asphalt Paving Machine | $ 13.40 ** | |
| Broom and Sweeper | $ 11.21 ** | |
| Crane, Lattice Boom 80 Tons or Less | $ 16.82 | |
| Crawler Tractor Operator | $ 13.96 ** | |
| Excavator, 50,000 lbs or less | $ 13.46 ** | |
| Front End Loader Operator, Over 3 CY | $ 12.77 ** | |
| Front End Loader, 3CY or less | $ 12.28 ** | |
| Loader/Backhoe | $ 14.18 ** | |
| Mechanic | $ 20.14 | |
| Milling Machine | $ 15.54 ** | |
| Motor Grader, Rough | $ 16.15 ** | |
| Motor Grader, Fine | $ 17.49 | |
| Pavement Marking Machine | $ 16.42 | |
| Reclaimer/Pulverizer | $ 12.85 ** | |
| Roller, Asphalt | $ 10.95 ** | |
| Roller, Other | $ 10.36 ** | |
| Scraper | $ 10.61 ** | |
| Spreader Box | $ 12.60 ** | |
| Servicer | $ 13.98 ** | |
| Steel Worker (Reinforcing) | $ 13.50 ** | |
| TRUCK DRIVER | | |
| Lowboy-Float | $ 14.46 ** | |
| Single Axle | $ 12.74 ** | |
| Single or Tandem Axle Dump | $ 11.33 ** | |
| Tandem Axle Tractor with Semi | $ 12.49 ** | |

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher

minimum wage under Executive Order 14026 ($16.20) or 13658 ($12.15). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and

the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

**TECHNICAL SPECIFICATIONS**

## SECTION 01 10 00 - SUMMARY

### PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:
   1. Work covered by Contract Documents.
   2. Contractor use of site and premises.
   3. Work sequence.
   4. Owner occupancy.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Owner: City of Midland, Midland Airpark
B. Identification: North Fence Replacement Project.
C. Location: Midland, Texas
D. Work consists of the removing existing chain-link fence and installing specified fence, gates, concrete strip, and grading.

1.3 CONTRACTOR USE OF SITE AND PREMISES

A. Limit use of site and premises to allow:
   1. Owner occupancy.

B. Construction operations: Limited to areas noted on Drawings.
C. Time restrictions for performing Work:
   1. Pre-identified adverse weather conditions/days.

D. Utility outages and shutdowns.
   1. Although not anticipated, if conflict with fence and existing utility requires a shutdown, schedule at least 1 week before outage/shutdown.

1.4 WORK SEQUENCE

A. Project will not be split into phases, but Contractor shall consult Owner on areas that could serve as access routes for other tenants.

1.5 OWNER OCCUPANCY

A. Owner will occupy premises during construction to conduct normal operations.
B. Cooperate with Owner to minimize conflict and facilitate Owner operations.

### PART 2 - PRODUCTS (Not Used)

### PART 3 - EXECUTION (Not Used)

END OF SECTION

## SECTION 01 20 00 - PRICE AND PAYMENT PROCEDURES

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Application for Payment.
   2. Change Procedures.
   3. Measurement and payment - unit prices.
   4. Alternates.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 APPLICATIONS FOR PAYMENT

A. Submit application on Engineer-provided/-approved Application for Payment or Contractor-standard form, approved by Engineer.
B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
C. Payment Period: As defined in Owner-Contractor agreement.
D. Complete Application for Payment includes Construction progress schedule, and submittal schedule, all required to process Application for Payment.

1.3 CHANGE PROCEDURES

A. Submittals: Submit name of person authorized to receive change documents and responsible for informing others in Contractor’s employ or subcontractors of changes to Work.
B. Carefully study and compare Contract Documents before proceeding with fabricating and installing Work. Promptly advise Engineer of any error, inconsistency, omission, or apparent discrepancy.
C. Requests for Information (RFI) and Clarifications: Allot time in construction scheduling for liaison with Engineer. Establish procedures for handling queries and clarifications.
   1. Use Procore for requesting information.
   2. Engineer may respond via Procore.
D. Engineer will advise of minor changes in the Work not involving adjustment to Contract Price or Time by issuing supplemental instructions on Engineer's standard Supplemental Information form.
E. Engineer may issue a change order on Engineer's standard form, including a detailed description of proposed change with supplementary or revised Drawings and Specifications for executing change. Contractor will prepare and submit proposed change in Contractor Price and/or Time within seven days.
F. Contractor may propose changes by submitting a request for change to Engineer, describing proposed change, and its full effect on Work. Include a statement describing reason for change, effect on Contract Price and Time, with full documentation.
G. Unit Price Change Order: For Contract unit prices and quantities, Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units not predetermined, execute Work under Engineer's standard form as recommended by Engineer and accepted by Owner and Contractor.
H. Document each quotation for change in Project Cost or Time with sufficient data to allow evaluation of quotation.
I. Change Order Forms: Engineer's standard form.

J. Execution of Change Orders: Engineer will issue Change Orders for signatures of parties as provided in Conditions of the Contract.

K. Correlation of Contractor Submittals:
   1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Price.
   2. Promptly revise Progress Schedules to reflect change in Contract Time, revise subschedules to adjust times for other items of Work affected by change and resubmit.
   3. Promptly enter changes in Record Documents.

1.4 UNIT PRICES

A. Authority: Measurement methods delineated in individual Specifications.

B. Take measurements and compute quantities. Engineer to verify.

C. Unit Quantities: Quantities and measurements indicated in Bid Form are for Contract purposes only. Quantities and measurements supplied or placed in Work determine payment. When actual Work requires more or fewer quantities than those indicated, provide required quantities at contracted unit prices.

D. Payment Includes:
   1. Full compensation for required labor, products, tools, equipment, plant, transportation, services, and incidentals;
   2. Erection, application, or installation of Work item;
   3. Overhead and profit.

E. Final payment for Work governed by unit prices will be made based on actual measurements and quantities accepted by Engineer multiplied by unit price for Work incorporated in or made necessary by Work.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

## SECTION 01 22 00 - MEASUREMENT AND PAYMENT

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Procedures for measurement and payment.
   2. Mobilization demobilization.
   3. Unit price items.
   4. Lump sum items.
   5. Bid Form-specific payment items.

B. Related Requirements:
   1. Section 00 41 00 “Bid Form.”
   2. Other Division 01 Specification Sections apply to Work of the Section.

1.2 PROCEDURES FOR MEASUREMENT AND PAYMENT

A. Unit price bid on each item as stated in Section 00 41 00 “Bid Form” includes furnishing all labor, superintendence, machinery, equipment, and materials, except as otherwise specified, necessary, or incidental to complete various item of Work per Drawings and Specifications.

B. Cost of Work or materials shown on Drawings or called for in Specifications and on which no separate payment is made, included in bid prices on various pay items.

C. Payment not made for any items not complete, including all associated incidental Work.

1.3 MOBILIZATION/DEMOBILIZATION

A. Payment made for mobilization and demobilization on lump sum basis.

B. Bid amount for mobilization and demobilization shall not exceed 5 percent of total Bid Price.

C. Work under this item consists of preparatory work and operations, including but not limited to those necessary for movement of personnel, equipment, supplies, and incidentals to Work; establish all offices, buildings, and other facilities necessary for Work; and all other work and operations performed or costs incurred prior to beginning work on various items of Work.

D. Payment for mobilization and demobilization will be on a lump sum basis with partial payments as noted. The adjusted Contract Amount as used herein is defined as the total Contract amount less lump sum for mobilization and demobilization.
   1. First Application for Payment: 50 percent of lump sum.
   2. Second Application for Payment: 75 percent of the lump sum.
   3. When 10 percent of adjusted Contract amount is earned, 90 percent of mobilization and demobilization lump sum.
   4. Final Application for Payment: 100 percent of mobilization and demobilization lump sum.

1.4 UNIT PRICE ITEMS

A. Unit price items, not otherwise included herein, paid at a unit price per unit.
B. Payment will include all work and material for installing unit price item as specified.
C. Measurement made in units shown on Section 00 41 00 “Bid Form.”

1.5 LUMP SUM ITEMS

A. Lump sum items include all work and materials for installing lump sum item as specified.
B. Payment based on percentage complete basis as agreed by Engineer and Contractor.
C. Payment includes all work and material for installing lump sum bid item as specified.

1.6 BID FORM-SPECIFIC PAYMENT ITEMS

A. General/Site:
    1. Remove Chain-Link Fence:
        a. Measurement: Linear foot basis as measured along fence.
        b. Payment: To remove and dispose wire, posts, etc., after installing new fence.
    2. Remove Swing Gate:
        a. Measurement: Each gate removed.
        b. Payment: To remove and dispose of posts, concrete, etc., after installing new fence.
    3. Install Cochrane Parkland Fence:
        a. Measurement: Linear foot basis as measured along the ground of installed fence with deduction for gates.
        b. Payment: For each type and height specified, shown on Drawings, and included in Bid Form, payment per linear foot for furnishing and installing.
    4. Install 10-foot-Wide Gate:
        a. Measurement: Each gate installed.
        b. Payment: For each type and height specified, shown on Drawings and included in Bid Form, payment per each for furnishing and installing at locations shown.
    5. Install 40-foot-Wide Gate:
        a. Measurement: Each gate installed.
        b. Payment: For each type and height specified, shown on Drawings and included in Bid Form, payment per each for furnishing and installing at locations shown.
    6. Concrete Mow Strip:
        a. Measurement: Linear foot basis as measured along the ground of installed concrete.
        b. Payment: For width and height specified, shown on Drawings and included in Bid Form, payment per each for furnishing and installing at locations shown.
    7. Temporary Fence:
        a. Measurement: Lump sum.
        b. Payment: For temporary fence material described on Drawings and Specifications, maintenance of temporary fence, and moving and securing temporary fence to secure site around Work location.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

## SECTION 01 25 00 - SUBSTITUTION PROCEDURES

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Quality assurance.
   2. Product options.
   3. Product substitution procedures.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 QUALITY ASSURANCE

A. Contract is based on products and standards established in Contract Documents without consideration of proposed substitutions.

B. Products specified define standard of quality, type, function, dimension, appearance, and performance required.

C. Substitution Proposals: Permitted for specified products except where specified otherwise. Do not substitute products unless Owner accepts substitution and approves in writing.

1.3 PRODUCT OPTIONS

A. See Section 01 60 00 “Product Requirements.”

1.4 PRODUCT SUBSTITUTION PROCEDURES

A. Engineer will consider requests for substitutions only within 30 days after date established in Notice to Proceed.

B. Substitutions may be considered when product becomes unavailable through no fault of Contractor.

C. Document each request with complete data, substantiating compliance of proposed substitution with Contract Documents, including:
   1. Manufacturer name and address, product, trade name, model, or catalog number, performance and test data, and reference standards.
   2. Itemized point-by-point comparison of proposed substitution with specified product, listing variations in quality, performance, and other pertinent characteristics.
   3. Reference to Article numbers in Specifications.
   4. Cost data comparing proposed substitution with specified product and amount of net change to Contract Sum.
   5. Changes required in other Work.
   6. Availability of maintenance service and source of replacement parts, as applicable.
   7. Certified test data to show compliance with performance characteristics specified.
   8. Samples when applicable or requested.
   9. Other information as necessary to assist Engineer’s evaluation.

D. A request constitutes a representation Contractor:
   1. Investigated proposed product and determined it meets/exceeds quality level of specified product.
   2. Will provide same warranty for substitution as specified product.
   3. Will coordinate installation and make changes to other Work required for Work to complete with no additional cost to Owner.
   4. Waives claims for additional costs/time extension that subsequently become apparent.
   5. Will coordinate installation of accepted substitute, making required changes for Work to complete in all respects.
   6. Will reimburse Owner for review/redesign services associated with reapproval by authorities having jurisdiction.

E. Substitutions not considered when indicated/implied on Shop Drawing or Product Data submittals without separate written request or acceptance requires revision to Contract Documents.

F. Substitution Submittal Procedure:
   1. Submit requests for substitutions on Contractor-standard or Engineer-provided form.
   2. Submit electronic files to Project website of Request for Substitution for consideration. Limit each request to one proposed substitution.
   3. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalence. Burden of proof is on Contractor.
   4. Engineer will notify Contractor in writing of decision to accept/reject request.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

## SECTION 01 30 00 - ADMINISTRATIVE REQUIREMENTS

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Project Information Management.
   2. Coordination.
   3. Preconstruction meeting.
   4. Electronic drawing file (digital data) request.
   5. Request for information.
   6. Progress meetings.
   7. Preinstallation meetings.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 PROJECT INFORMATION MANAGEMENT

A. Project Website:
   1. Use Procore at https://app.procore.com/login to send and receive Project information.
   2. Contact Engineer to set up user name and password information.
   3. If Project is not listed when logged in, contact Engineer to add Project to your account.

B. Project information includes, but is not limited to:
   1. Product Submittals.
   2. Requests for Information (RFI).
   3. Applications for Payment.
   4. Schedules.
   5. Construction Change Requests (CCRs).
   6. Close-out Documents.
   7. Construction Document Files.

1.3 COORDINATION

A. Coordinate scheduling, submittals, and Work to assure efficient and orderly sequence of installation of construction elements.

B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various Sections having interdependent responsibilities for installing, connecting to, and placing such equipment in service.

C. Coordinate space requirements and installation of mechanical and electrical work indicated diagrammatically on Drawings. Follow routing as closely as practicable. Utilize spaces efficiently to maximize accessibility for other installations, maintenance, and repairs.

D. In finished building areas, except as otherwise indicated, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements, as applicable.

E. Coordinate completion and clean-up of Work of separate Sections in preparation for Substantial Completion.

F. After Owner occupancy of premises, coordinate access to site with Owner for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

G. A Construction Safety and Phasing Plan has been submitted to the FAA for construction equipment up to 20 feet in the provided workspace. If Contractor's equipment exceeds 20 feet, Contractor must submit location and height of equipment for approval for use at specified locations to the FAA for approval through the FAA's OE/AAA website.

1.4 PRECONSTRUCTION MEETING

A. Engineer will schedule a meeting after Notice to Proceed.
B. Attendance Required:
   1. Owner.
   2. Engineer.
   3. Contractor.
   4. Major subcontractors.
C. Agenda:
   1. Distribute Contract Documents.
   2. Submit lists of subcontractors and products, Schedule of Values, submittal schedule, and progress schedule.
   3. Designate personnel representing each party in Contract and Engineer.
   4. Procedures and processing field decisions, submittals, substitutions, Applications for Payments, proposal request, Change Orders, Request for Information (RFI), and Contract closeout procedures.
   5. Review Notice to Proceed and Substantial/Final Completion Dates.
   6. Workmen's identification and background checks.
   7. Stormwater Pollution and Prevention Plan (SWPPP), if necessary.
   8. Scheduling:
      a. Use of premises by Owner and Contractor.
      b. Owner's requirements.
      c. Construction facilities and controls provided by Owner.
      d. Temporary utilities provided by Owner.
      e. Security and housekeeping procedures.
      f. Construction progress meetings.
      g. Procedures for testing.
      h. Procedures for maintaining record documents.
      i. Requirements for start-up of equipment.
      j. Inspection and acceptance of equipment put into service during construction.
   9. Scheduling activities of Construction Material Testing lab.
D. Engineer shall record minutes and distribute copies to participants.

1.5 ELECTRONIC DRAWING FILE (DIGITAL DATA) REQUEST

A. During Procurement Phase:
   1. Bidders and Proposers may purchase a Digital Data file. Digital Data file will be provided in software release currently used by Engineer. File will be provided via Engineer's Project website.
   2. AutoCAD Drawing files (.DWG) are available for purchase from Engineer upon request. Cost of files are indicated below plus applicable tax.
      a. 1 – 3 Sheets: $100.00 per sheet.
      b. 4 – 6 Sheets: $400.00 flat fee.
      c. 7 – 9 Sheets: $500.00 flat fee.

3. Prior to delivery of file(s), purchaser shall sign a Digital Data Licensing Agreement. Payment for Digital Data file(s) shall occur upon delivery of file to purchaser.
4. Digital Data file(s) shall be used only for preparing Bids and Proposals required by this Project not used in any other form, in whole or in part.

1.6 REQUEST FOR INFORMATION (RFI)

A. RFI requests from subcontractors or material suppliers will not be considered.
B. Information indicated on RFI shall be complete before submission. If Engineer determines request can be answered with information provided, Engineer will assign RFI tracking number. If Engineer determines request is not an RFI, request will be returned to Contractor electronically and deleted from Engineer's electronic tracking software without assigning an RFI tracking number. A transmittal document returning denied RFI request will be provided with a response indicating action to be taken by Contractor.
C. RFIs may contain more than one item when items are related. Otherwise, only one item shall be addressed on each RFI request.
D. Allow seven days for Engineer's response to each RFI.
E. Response to RFI will be issued to Contractor and Owner per Section 01 33 00 "Submittal Procedures."
F. Responses from Engineer are not changes unless issued with a change per Section 01 20 00 "Price and Payment Procedures."

1.7 PROGRESS MEETINGS

A. Schedule and administer bi-weekly or as necessary throughout Work progress, at minimum.
B. Engineer will arrange meetings, prepare agenda with copies for participants, preside at meetings.
C. Attendance Required:
   1. Owner.
   2. Job superintendent.
   3. Major subcontractors.
   4. Suppliers.
   5. Engineer.
   6. As appropriate to agenda topics for each meeting.
D. Agenda:
   1. Review minutes of previous meetings.
   2. Review Work progress.
   3. Field observations, problems, and decisions.
   4. Identify problems which impede planned progress.
   5. Review submittal schedule and status of submittals.
   6. Review off-site fabrication and delivery schedules.
   7. Maintenance of progress schedule.
   8. Corrective measures to regain projected schedules.
   9. Planned progress during succeeding Work period.
   10. Coordinate projected progress.
   11. Maintenance of quality and work standards.
   12. Effect of proposed changes on progress schedule and coordination.
   13. Other business relating to Work.
E. Record minutes and distribute copies within 5 days to Engineer, participants, and those affected by decisions made.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

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## *Digital Data Licensing Agreement*

**AGREEMENT** made as of the day of in the year
*(In words, indicate day, month, and year.)*

**BETWEEN** the Party transmitting Digital Data ("Transmitting Party"):
*(Name, address, and contact information, including electronic addresses)*

and the Party receiving the Digital Data ("ei ng rty"
*(Name, address, and contact mation, in din tron addresses)*

for the following ct:
*(Name and location or address of the Project)*

for the following Digital Data ("Digital Data"):
*(Identify below, in detail, the information created or stored in digital form that the Parties intend to be subject to this Agreement.)*

[Revit Models (.rvt files)]
[AutoCAD (.dwg files)]
[Portable Document Format (.pdf)]

The Transmitting Party and Receiving Party agree as follows.

**DDITIONS AND DELETIONS:**
The author of this document has ad information needed for its ompletion. The author may also ave revi the text of the original A ndard form. An *Additions and letions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

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**TABLE OF ARTICLES**


1 GENERAL PROVISIONS

2 TRANSMISSION OF DIGITAL DATA

3 LICENSE CONDITIONS

4 LICENSING FEE OR OTHER COMPENSATION


## ARTICLE 1 GENERAL PROVISIONS

**§ 1.1** The purpose of this Agreement is to grant a license from the Transmitting Party to the Receiving Party for the Receiving Party's use of Digital Data and to set forth the license terms.

**§ 1.2** This Agreement is the entire and integrated agreement between the Parties. Except as specifically set forth herein, this Agreement does not create any other contractual relationship between the Parties.

**§ 1.3** Confidential Digital Data is Digital Data containing confidential or business proprietary information that the Transmitting Party designates as "confidential."

## ARTICLE 2 TRANSMISSION OF DIGITAL DATA

**§ 2.1** The Transmitting Party grants to the Receiving Party a nonexclusive limited license to use the Digital Data solely and exclusively for the uses, and in accordance with the terms, set forth in Article 3.

**§ 2.2** Only the Receiving Party is permitted to access and use the Digital Data. Unl nsed and unauthorized access or use by third parties is strictly prohibited except as set forth in Section 2.4.1.

**§ 2.3** The transmission of Digital Data constitutes a warranty by the ansmitting Par o the Rec ving Party that the Transmitting Party is the copyright owner of the Digital Data or other se has permissi to nsmit the Digital Data to the Receiving Party for its use on the Project in accord h the ms and condit s of this Agreement.

**§ 2.4** Where the Transmitting Party has designa d inf rnished nt to this Agreement as "confidential," the Receiving Party shall keep form confidential and shall not disclose it to any other person or entity except as set forth in Section .4.1.

**§ 2.4.1** The Receiving Party may disc se nf nti Digital Data after seven (7) days' notice to the Transmitting Party where disclosure uired by la inc g a subpoena or other form of compulsory legal process issued by a court or governmental e by cour arbi tor(s) order. The Receiving Party may also disclose Confidential Digital Data to its emplo ltants, reties, subcontractors and their employees, sub-subcontractors, and others o ne d to know nten such information solely and exclusively for the Project and who agree to maint the confidential of such information.

**§ 2.5** By transmitti Digital Data, the Transmitting Party does not convey any ownership right in the Digital Data or in the softw re us o generate the Digital Data. Unless otherwise granted in a separate license, the Receiving Party's right to use, modify, or further transmit Digital Data is specifically limited to those uses, and in accordance with the terms, set forth in Article 3, and nothing contained in this Agreement conveys any other right to use the Digital Data.

**§ 2.6** To the fullest extent permitted by law, the Receiving Party shall indemnify and defend the Transmitting Party from and against all claims arising from or related to the Receiving Party's modification to, or unlicensed use of, the Digital Data.

**§ 2.7** Transmission of the Digital Data does not abridge or extinguish the Transmitting Party's rights, including, to the extent applicable, exclusive ownership interest, in such information under all applicable state, federal, and international laws including, without limitation, laws governing the protection of copyrights and intellectual property.

**§ 2.8** The provisions of this Article 2 shall survive the termination of this Agreement.


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**ARTICLE 3 LICENSE CONDITIONS**

**§ 3.1** The Receiving Party may use and rely upon the Digital Data to the extent set forth in this Article 3.

*(Paragraph deleted)*

[ X ] **§ 3.1.1** The Digital Data is transmitted solely for the Receiving Party's information. Receiving Party acknowledges that any use of the Digital Data shall be at Receiving Party's sole risk. he Receiving Party accepts the Digital Data "as is" without any warranty or representations fro the Transmitting Party as to whether the Digital Data is accurate, complete, or fit for use as in ed by the Receiving Party. The Receiving Party is solely responsible for verifying whether the Dig Da s accurate, complete, or fit for the Receiving Party's intended use.

*(Paragraphs deleted)*

**§ 3.1.1.1** This Digital Data is part of the Transmit nstr ents of Se vice and shall not be used by Receiving Party or anyone else receiving ugh or m Receiving Party for any purpose other than as a convenience in t epara id submitta shop drawings, coordination drawings, construction phase submittals, d eld la t and staking required by the Owner for the exclusive use of the referenced ct. A u or reu by the Receiving Party or by others will be at the Receiving Party's sole risk w hou ab y or l al exposure to Transmitting Party. The Receiving Party agr s to make n lai a here waive, to the fullest extent permitted by law, any claim or cause of a any natu agai Transmitting Party, its officers, directors, employees, or subconsultants that out of in connection with Receiving Party's use of this Digital Data.

**§ 1.1.2** No represe on as to the compatibility of this Digital Data with Receiving Party's h war twar provided.

**§ 3.1.1.3** This gital Data is not a Construction Document. Differences may exist between this Digita nd corresponding two-dimensional hard-copy Construction Document. The Transmitting Party makes no representation regarding the accuracy or completeness of the Digital Data the Receiving Party receives. In the event that a conflict arises between the signed/sealed two-dimensional hard-copy Construction Document prepared by Transmitting Party and the Digital Data, the signed/sealed two-dimensional hard-copy Construction Document shall govern. The Receiving Party is responsible for determining if any conflict exists. By the Receiving Party's use of this Digital Data, Receiving Party is not relieved of their duty to fully comply with the Contract Documents, including, and without limitation, the need to check, confirm and coordinate all dimensions and details, field measurements, verify field conditions and coordination of work with that of other contractors for the Project.

**§ 3.1.1.4** Because information presented in the Digital Data can be modified, unintentionally or otherwise, the Transmitting Party reserves the right to remove all indicia of ownership and/or involvement from each Digital Data.

**§ 3.1.1.5** Under no circumstances shall delivery of this Digital Data for use by the Receiving Party be deemed a sale of document ownership by Transmitting Party, and no warranties, either express or implied, of merchantability or fitness for any particular purpose is made. In no event shall the Transmitting Party be liable for any loss of profit or any consequential damages as a result of the Receiving Party's use or reuse of this Digital Data.

**§ 3.1.1.6** The Digital Data file does not necessarily contain all the information that is required to produce finished Construction Documents. Because of this, there may be data within the Digital Data that is missing, incomplete or even contradictory to the information provided in the final two dimensional Construction Documents.

**§ 3.1.1.7** Professional judgment will need to be used by the Receiving Party, along with reasonable expectations and interpretations in order to use the Digital Data for its intended purpose. Should the Transmitting Party provide revised and updated copies of the Digital Data to the Receiving Party throughout the Project, all terms and conditions of this agreement will be applicable and unchanged for all subsequent transmissions of the Digital Data

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**User Notes:** (913993287)

**ARTICLE 4 LICENSING FEE OR OTHER COMPENSATION**

The Receiving Party agrees to pay the Transmitting Party the following fee or other compensation for the Receiving Party's use of the Digital Data:

*(State the fee, in dollars, or other method by which the Receiving Party will compensate the Trans ing Party for the Receiving Party's use of the Digital Data.)*

This Agreement is entered into as of the day and year first written ab d term ates one year f said date, except as set forth below.

*(Indicate when this Agreement will terminate, if other than one e date wa ntered into, and other conditions related to termination.)*

N/A

| | |
|---|---|
| **PARKHILL** | **[RECEIVING PARTY]** |
| **TRANSMITTING RT** *ture* | **RECEIVING PARTY** *(Signature)* |
| *(Printed name and titl* | *(Printed name and title)* |

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## SECTION 01 32 16 - CONSTRUCTION PROGRESS SCHEDULE

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Submittals.
   2. Bar/Gantt chart schedules.
   3. Review and evaluation.
   4. Updating schedules.
   5. Distribution.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 SUBMITTALS

A. Post as electronic file to Project website.

B. Submit initial progress schedule for Engineer review within 15 days after established Notice to Proceed date.

C. Schedule Updates:
   1. Submit with each Application for Payment.
   2. Projected and actual percent of completion.
   3. Completion progress by listed activity and sub-activity within five working days prior to submittal.
   4. Changes in Work scope and activities modified since submittal.
   5. Delays in submittals or resubmittals, deliveries, or Work.
   6. Adjusted or modified sequences of Work.
   7. Other identifiable changes.
   8. Revised projections of progress and completion.

D. Narrative Progress Report:
   1. Submit with each Application for Payment.
   2. Summary of Work completed during past period between reports.
   3. Work planned during next period.
   4. Explanation of differences between summary of Work completed and Work planned in previously-submitted report.
   5. Current and anticipated delaying factors and estimated impact on other activities and completion milestones.
   6. Corrective action taken or proposed.

1.3 BAR/GANTT CHART SCHEDULES

A. Format Bar/Gantt chart Schedule, to include at least:
   1. Identification and listing, in chronological order, activities reasonably required to complete Work, including:
      a. Subcontract Work.
      b. Major equipment design, fabrication, factory testing, and delivery dates including required lead times.
      c. Move-in and other preliminary activities.
      d. Equipment and equipment system test and startup activities.

e. Project closeout and cleanup.
f. Work sequences, constraints, and milestones.

2. Listings identified by Specification Section number.
3. Identification of:
   a. Horizontal time frame by year, month, and week.
   b. Duration, early start, and completion for each activity and subactivity.
   c. Critical activities and Project float.
   d. Sub-schedules to further define critical portions of Work.

1.4 REVIEW AND EVALUATION

A. Participate in joint review and evaluation of schedules with Engineer at each Progress Meeting or Application for Payment submittals.
B. Evaluate Project status to determine Work behind and ahead of schedule.
C. After review, revise schedules incorporating results of review, and resubmit within 10 days.

1.5 UPDATING SCHEDULES

A. Maintain schedules to record actual start and finish dates of completed activities.
B. Indicate progress of each activity to date of revision, with projected completion date of each activity. Update schedules to depict current status of Work.
C. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
D. Upon approval of Change Order, include change in next schedule submittal.
E. Indicate changes required to maintain Date of Substantial Completion.
F. Prepare narrative report to define problem areas, anticipated delays, and impact on schedule. Report corrective action taken or proposed and effect.

1.6 DISTRIBUTION

A. Following joint review, provide to Engineer for distribution.
B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

## SECTION 01 33 00 - SUBMITTAL PROCEDURES

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Submittal procedures.
2. Resubmittal requirements.
3. Proposed products list.
4. Requirements for complete Shop Drawings.
5. Product data.
6. Samples.
7. Test reports.
8. Certificates.
9. Manufacturer instructions.
10. Manufacturer field reports.

B. Related Requirements:
1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 SUBMITTAL PROCEDURES

A. Submit to Procore via procedures provided in Preconstruction Meeting.
B. Identify Project, Contractor, subcontractor, or supplier, pertinent Drawing sheet and detail number(s), and Specification Section number appropriate to submittal.
C. Apply Contractor's stamp, signed or initialed certifying review, verification of products required, field dimensions, adjacent construction Work, and coordination of information, is per requirements of Work and Contract Documents.
D. Schedule submittals to expedite Project and deliver to Engineer. Coordinate submission of related items.
E. For each submittal for review, allow 10 working days excluding delivery time to and from Contractor.
F. Identify variations from Contract Documents and product or system limitations detrimental to successful performance of completed Work. Information, comments, field verifications, responses, or other notations marked on submittals by Contractor shall be in blue or green colors only.
G. Unrequested Submittals will not be recognized or processed.
H. Format:
1. Submit all submittals digitally using PDF file extension. Each submittal shall be a single PDF file including transmittal letter. Multiple files for same submittal will not be accepted.
2. Submittals in any other format, including ZIP files, will be rejected.
3. Hard copies not accepted.
4. To ensure each page is legible, PDF pages of Drawings shall be same size/scale as hard copy. Where applicable, provide scale symbols to indicate scale. Illegible submittals will be rejected.
5. Upload submittals to Procore website.

I. Submittal procedures described herein apply to construction progress schedule, products list, shop Drawings, product data, samples (actual samples and digital files of same), design data, test reports, certificates, manufacturer's instructions and field reports, erection Drawings, RFIs, and other submittals submitted to Engineer.

1.3 RESUBMITTAL REQUIREMENTS

A. Revise submittals as required and resubmit to meet requirements specified and noted on submittal reviews.
B. Mark as *Resubmittal*.
C. Reuse original transmittal number and supplement with sequential alphabetical or numeric suffix for each resubmittal.

1.4 PROPOSED PRODUCTS LIST

A. Within 15 days after date of Notice to Proceed, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.5 REQUIREMENTS FOR COMPLETE SHOP DRAWINGS

A. Printable Image Size: Minimum 8-1/2 by 11 inches, maximum 30 by 42 inches.
B. Draw details to a noted scale.
C. Draw Site Plans to same scale indicated on Contract Drawings.
D. Engineer-issued Construction Documents (electronic or paper format) cannot be used in any shape, form, or fashion in creating and developing Shop Drawings, except electronic files containing floor, site plans, or layout plans purchased from Engineer may be used as backgrounds for Contractor, subcontractors, sub-subcontractors, and material suppliers in Shop Drawing process.

1.6 PRODUCT DATA

A. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to Project.
B. Include recommendations for application and use, and reference to compliance with specified standards of trade associations and testing agencies.
C. After review, distribute per Article 1.2 "Submittal Procedures," and provide copies for Record Documents described in Section 01 70 00 "Execution and Closeout Requirements."

1.7 TEST REPORTS

A. Submit for Engineer's knowledge as Contract Administrator or Owner.
B. Submit test reports for information to assess conformance with information given and design concept expressed in Contract Documents.

1.8 CERTIFICATES

A. When specified in individual Specifications, submit certification by manufacturer, installation/application subcontractor, or Contractor, to Engineer.
B. Indicate material or product conforms to/exceeds specified requirements. Submit supporting reference data, affidavits, and certifications, as appropriate.
C. Certificates may be recent or previous test results on material or product but must be acceptable to Engineer.

1.9 MANUFACTURER'S INSTRUCTIONS

A. When specified in individual Specifications, submit manufacturer-printed instructions for delivery, storage, assembly, installation, startup, adjusting, and finishing.
B. Identify conflicts between manufacturers' instructions and Contract Documents.
C. Indicate special procedures, conditions requiring special attention and special environmental criteria required for application or installation.

1.10 MANUFACTURER'S FIELD REPORTS

A. Submit reports for Engineer's benefit as contract administrator or for Owner.
B. Submit report within 30 days of observation to Engineer for information.
C. Submit for information to assess conformance with information given and design concept expressed in Contract Documents.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

## SECTION 01 40 00 - QUALITY REQUIREMENTS

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Quality control.
   2. Tolerances.
   3. References.
   4. Mockup requirements.
   5. Testing and inspection services.
   6. Manufacturers' field services.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 QUALITY CONTROL

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturer's instructions. If manufacturer's instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Perform Work using persons qualified to produce required and specified quality.

D. Products, materials, and equipment may be subject to inspection by Engineer at place of manufacture or fabrication. Such inspections shall not relieve Contractor of complying with requirements of Contract Documents.

E. Supervise performance of Work to ensure Work, whether completed or in progress, will not be subjected to harmful, dangerous, damaging, or otherwise deleterious exposure during construction.

1.3 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' recommended tolerances and tolerance requirements in reference standards. When tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

1.4 REFERENCES

A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard except when more rigid requirements are specified or required by applicable codes.

B. Conform to reference standard by date of issue current as of date of Contract Documents except where specific date is established by code.

C. Obtain copies of standards and maintain onsite when required by product Specifications.

D. When requirements of indicated reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.

E. Neither contractual relationships, duties, or responsibilities of parties in Contract, nor those of Engineer shall be altered from Contract Documents by mention or inference in reference documents.

1.5 TESTING AND INSPECTION SERVICES

A. Owner will employ and pay for specified services of an independent firm to perform testing and inspection.

1.6 MANUFACTURER'S FIELD SERVICES

A. When specified in individual Specifications, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, as applicable, and initiate instructions when necessary.
B. Submit qualifications of observer to Engineer 30 days before required observations. Observer is subject to Engineer approval.
C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturer's written instructions.
D. Refer to Section 01 33 00 "Submittal Procedures," Article 1.11 - Manufacturer's Field Reports.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

## SECTION 01 43 26 - TESTING LABORATORY SERVICES

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. References.
2. Selection and payment.
3. Quality Assurance.
4. Contractor submittals.
5. Laboratory responsibilities.
6. Laboratory reports.
7. Limits on testing laboratory authority.
8. Contractor responsibilities.
9. Schedule of inspections and tests.

B. Related Requirements:
1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

A. ASTM C 1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation.

1.3 SELECTION AND PAYMENT

A. Owner shall contract with and pay for services of an independent testing laboratory to perform specified inspection and testing.

1.4 CONTRACTOR RESPONSIBILITIES

A. Cooperate with laboratory personnel and provide access to Work.
B. Notify Engineer and laboratory 24 hours before expected time for operations requiring inspection and testing services.

1.5 SCHEDULE OF INSPECTIONS AND TESTS

A. As indicated in individual Specifications.

### PART 2 - PRODUCTS (Not Used)

### PART 3 - EXECUTION (Not Used)

END OF SECTION

## SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Temporary Utilities:
      a. Water.
      b. Sanitary.
   2. Construction Facilities:
      a. Vehicular access.
      b. Parking.
      c. Progress cleaning.
      d. Traffic regulation.
   3. Temporary Controls:
      a. Barriers.
      b. Fencing.
      c. Enclosures.
      d. Security.
      e. Dust control.
      f. Protect Work.
   4. Remove utilities, facilities, and controls.

B. Related Requirements:
   1. Other Divisions 01 Specification Sections apply to Work of this Section.

1.2 WATER

A. Provide, maintain, and pay for suitable quality water service required for construction operations. Extend branch piping with outlets located so water is available by hoses with threaded connections.
B. Connect to existing water source for construction operations. Extend and supplement with temporary devices as needed to maintain specified conditions for construction operations.
C. Provide separate metering and reimburse Owner for cost of water used.
D. Provide temporary pipe insulation to prevent freezing.

1.3 SANITARY

A. Provide and maintain required facilities and enclosures.
B. Do not use existing facilities.

1.4 VEHICULAR ACCESS

A. Location as indicated on Drawings.

1.5 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain a clean and orderly site.
B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, before enclosing space.
C. Sweep and vacuum interior areas clean before surface finishing and continue cleaning to eliminate dust.
D. Remove waste materials, debris, and rubbish from site and dispose off-site as required to maintain clean site.

1.6 TRAFFIC REGULATION

A. Haul Routes:
   1. Drawings indicate haul routes designated by authorities having jurisdiction for use of construction traffic.
   2. Confine construction traffic to designated haul routes.

1.7 SECURITY

A. Security Program:
   1. Protect Work from theft, vandalism, and unauthorized entry.
   2. Initiate program at Project mobilization.
   3. Maintain program throughout construction period until directed by Engineer.
B. Entry Control:
   1. Restrict entrance of persons and vehicles into Project site and existing facilities.
   2. Allow entrance only to authorized persons with proper identification.
   3. Maintain log of workers and visitors and make available to Owner on request.

1.8 WATER CONTROL

A. Grade site to drain.
B. Maintain excavations free of water.
C. Provide, operate, and maintain pumping equipment.

1.9 DUST CONTROL

A. Execute Work to minimize raising dust from construction operations.
B. Provide positive means to prevent airborne dust from dispersing into atmosphere.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

## SECTION 01 60 00 - PRODUCT REQUIREMENTS

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Products.
   2. Product delivery requirements.
   3. Product storage and handling requirements.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 PRODUCTS

A. At minimum, comply with specified requirements and reference standards.

B. Specified products define standard of quality, type, function, dimension, appearance, and performance required.

C. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise. Confirm manufacturer production capacity can provide sufficient product, on time, to meet Project requirements.

1.3 PRODUCT DELIVERY REQUIREMENTS

A. Transport and handle products per manufacturer instructions.

B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.

C. Provide equipment and personnel to handle products. Prevent soiling, disfigurement, or damage.

D. Owner will not assist in offloading or accepting product deliveries.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

A. Store and protect products per manufacturer instructions.

B. Store products with seals and labels intact and legible.

C. Store sensitive products in weathertight, climate-controlled enclosures in an environment suitable to product.

D. For exterior storage of fabricated products, place products on sloped supports above ground.

E. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

F. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.

G. Provide equipment and personnel to store products. Prevent soiling, disfigurement, or damage.

H. Arrange product storage to permit access for inspection. Periodically inspect to verify products are undamaged and maintained in acceptable condition.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

END OF SECTION

## SECTION 01 70 00 - EXECUTION AND CLOSEOUT REQUIREMENTS

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Surveying.
   2. Closeout procedures.
   3. Project record documents.
   4. Spare parts and maintenance products.
   5. Examination.
   6. Preparation.
   7. Execution.
   8. Protecting installed construction.
   9. Final cleaning.

B. Related Requirements:
   1. Other Division 01 Specification Sections apply to Work of this Section.

1.2 SURVEYING

A. Employ land surveyor registered in State of Texas and acceptable to Engineer.

B. Locate and protect survey control and reference points. Promptly notify Engineer of discrepancies discovered.

C. Control datum for survey is indicated on Drawings.

D. Verify setbacks, easements, and rights of way. Confirm Drawing dimensions and elevations.

E. Provide field engineering services. Establish elevations, lines, and levels using recognized engineering survey practices.

F. Submit copy of Site Drawing signed by land surveyor certifying elevations and locations of Work are per Contract Documents.

G. Maintain complete and accurate log of control and survey Work as Work progresses.

H. Protect survey control points before starting Site Work. Preserve permanent reference points during construction.

I. Promptly report to Engineer loss or destruction of reference point or relocation required because of changes in grades or other reasons.

J. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Engineer.

1.3 CLOSEOUT PROCEDURES

A. Prerequisites to Substantial Completion. Complete following items before requesting Certification of Substantial Completion, either for entire Work or portions of Work:
   1. Submit maintenance manuals, Project record documents, and other similar final record data per this Section.
   2. Conduct inspection to establish basis for request that Work is substantially complete. Create comprehensive list (initial punch list) indicating items to complete or correct, value of incomplete or nonconforming Work, reason for incompletion, and date of anticipated completion for each item. Include copy of list with request for Certificate of Substantial Completion.
   3. Obtain and submit releases enabling Owner's full, unrestricted use of Project and access to services and utilities. Include certificate of occupancy, operating certificates, and similar releases from authorities having jurisdiction and utility companies.
   4. Deliver tools, spare parts, extra stocks of material, and similar physical items to Owner.
   5. Discontinue or change over and remove temporary facilities and services from Project Site, along with construction tools, mockups, and similar elements.
   6. Perform final cleaning per this Section.

B. Substantial Completion Inspection:
   1. When Contractor considers Work substantially complete, submit to Engineer and Owner:
      a. Written certificate that Work, or designated portion, is substantially complete.
      b. List of items to complete or correct (initial punch list).
   2. Within 7 days after receipt of request for Substantial Completion, Engineer and Owner will inspect to determine if Work or designated portion is substantially complete.
   3. If Engineer and Owner determine Work is NOT substantially complete:
      a. Engineer and Owner will promptly notify Contractor in writing, stating reasons for opinion.
      b. Contractor shall remedy deficiencies in Work and send second written request for Substantial Completion to Engineer and Owner.
      c. Engineer and Owner will reinspect Work.
      d. Repeat until Work passes inspection.
   4. When Engineer and Owner finds Work is substantially complete, they will:
      a. Prepare Certificate of Substantial Completion on EJCDC C-625 - Certificate of Substantial Completion, accompanied by Contractor's list of items to complete or correct as verified and amended by Engineer and Owner (final punch list).
      b. Submit Certificate to Owner and Contractor for written acceptance of responsibilities assigned in Certificate.
   5. After Work is substantially complete:
      a. Allow Owner occupancy of Project under provisions stated in Certificate of Substantial Completion.
      b. Complete Work listed for completion or correction within time stipulated.

C. Prerequisites for Final Completion. Complete following items before requesting final acceptance and final payment:
   1. When Contractor considers Work complete, submit written certification that:
      a. Contract Documents were reviewed.
      b. Work was examined for compliance with Contract Documents.
      c. Work was completed per Contract Documents.
      d. Work is complete and ready for final inspection.

2. Submit:
    a. Final punch list indicating all items are complete or correct.
    b. Final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations, where required.
    c. Specified warranties, workmanship/maintenance bonds, maintenance agreements, and other similar documents.
    d. Accounting statement for final changes to Contract Sum.
    e. Contractor's Affidavit of Payment of Debts and Claims on Contractor form.
    f. Contractor Affidavit of Release of Liens on Contractor form.
    g. Consent of Surety to Final Payment on Contractor form.
3. Perform final cleaning for Contractor-soiled areas per this Section.

D. Final Completion Inspection:
1. Within seven days after receipt of request for final inspection, Engineer and Owner will inspect to determine if Work or designated portion is complete.
2. If Engineer and Owner consider Work incomplete or defective:
    a. Engineer and Owner will promptly notify Contractor in writing, listing incomplete or defective Work.
    b. Contractor shall remedy stated deficiencies and send second written request to Engineer and Owner that Work is complete.
    c. Engineer and Owner will reinspect Work.
    d. Redo and Inspect Deficient Work: Repeated until Work passes inspection.
    e. Engineer and Owner inspection.

## 1.4 PROJECT RECORD DOCUMENTS

A. Maintain onsite, one set of these Record Documents and record actual revisions to Work:
1. Drawings.
2. Specifications.
3. Addenda.
4. Change Orders and other modifications to Contract.
5. Manufacturer's instruction for assembly, installation, and adjusting.

B. Ensure entries are complete and accurate, enabling future reference by Owner.
C. Store record documents separate from documents used for construction.
D. Record information concurrent with construction progress, not less than weekly.
E. Specifications: Legibly mark and record, at each product Section, description of actual products installed, including:
1. Manufacturer name, product model, and number.
2. Product substitutions or alternates used.
3. Changes made by Addenda and modifications.

F. Record Drawings: Legibly mark each item to record actual construction as:
1. Include Contract modifications such as Addenda, supplementary instructions, change directives, field orders, minor changes in Work, and change orders.
2. Include locations of concealed elements of Work.
3. Identify depth of buried utility lines and provide dimensions showing distances from permanent facility components parallel to utilities.
4. Dimension ends, corners, and junctions of buried utilities to permanent facility components using triangulation.
5. Identify and locate existing buried or concealed items encountered during Project.

6. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
7. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of Work.
8. Field changes of dimension and detail.
9. Details not on original Drawings.

G. Submit marked-up paper copy documents to Engineer with claim for Final Application for Payment.

H. Submit PDF electronic files of marked-up documents to Engineer with claim for Final Application for Payment.

1.5 SPARE PARTS AND MAINTENANCE PRODUCTS

A. Furnish spare parts, maintenance, and extra products in quantities specified in individual Specifications.

B. Deliver to place in location as directed by Owner. Obtain receipt before final payment.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verify existing Site conditions and substrate surfaces are acceptable for subsequent Work.

B. Beginning new Work means acceptance of existing conditions.

C. Verify existing substrate can structurally support or attach new Work applied.

D. Examine and verify specific conditions described in individual Specifications.

E. Verify utility services are available with correct characteristics and in correct locations.

3.2 PREPARATION

A. Clean substrate surfaces before applying next material or substance per manufacturer instructions.

B. Seal cracks or openings of substrate before applying next material or substance.

C. Apply manufacturer-required or -recommended substrate primer, sealer, or conditioner before applying new material or substance in contact or bond.

3.3 EXECUTION

A. Comply with manufacturer installation instructions, performing each step, in sequence. Maintain one set of manufacturer installation instructions at Project Site during installation and until completion of construction.

B. When manufacturer installation instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Verify field measurements are as indicated on approved Shop Drawings or as instructed by manufacturer.

D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
   1. Secure Work true-to-line and level and within specified tolerances, or if not specified, industry-recognized tolerances.
   2. Physically separate products in place, provide electrical insulation, or provide protective coatings to prevent galvanic action or corrosion between dissimilar metals.
   3. Exposed Joints: Provide uniform joint width and arrange to obtain best visual effect. Refer questionable visual-effect choices to Engineer for final decision.
E. Allow for expansion of materials and building movement.
F. Climatic Conditions and Project Status: Install each unit of Work under conditions to ensure best possible results in coordination with entire Project.
   1. Isolate each unit of Work from incompatible Work necessary to prevent deterioration.
   2. Coordinate enclosure of Work with required inspections and tests to minimize necessity of uncovering Work for those purposes.
G. Mounting Heights: Where not indicated, mount individual units of Work at industry-recognized standard mounting heights for particular application indicated.
   1. Refer questionable mounting heights choices to Engineer for final decision.
   2. Elements Identified as Accessible to Handicapped: Comply with applicable codes and regulations.
H. Adjust operating products and equipment to ensure smooth and unhindered operation.
I. Clean and perform maintenance on installed Work as frequently as necessary through remainder of construction. Lubricate operable components recommended by manufacturer.

## 3.4 PROTECTING INSTALLED CONSTRUCTION

A. Protect installed Work and provide special protection where specified.
B. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.
C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
D. Use durable sheet materials to protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects.
E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
F. Prohibit traffic from landscaped areas.

## 3.5 FINAL CLEANING

A. Clean site. Sweep paved areas and rake landscaped surfaces clean.

END OF SECTION

## SECTION 03 20 00 - CONCRETE REINFORCING

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Reinforcing bars.
   2. Welded wire fabric.
   3. Reinforcement accessories.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 03 30 00 "Cast-in-Place Concrete" for cast-in-place or in-situ concrete for structural building frame, slabs on grade, and other concrete components associated with building.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. No separate payment will be made for materials or labor. Item should be considered subsidiary to most appropriate bid item.

1.3 REFERENCE STANDARDS

A. American Concrete Institute:
   1. ACI 301 - Specifications for Structural Concrete.
   2. ACI 318 - Building Code Requirements for Structural Concrete.
   3. ACI 530/530.1 - Building Code Requirements and Specification for Masonry Structures.
   4. ACI SP-66 - ACI Detailing Manual.

B. American Welding Society:
   1. AWS D1.4 - Structural Welding Code - Reinforcing Steel.

C. ASTM International:
   1. ASTM A184 - Standard Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement.
   2. ASTM A615 - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
   3. ASTM A704 - Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement.
   4. ASTM A706 - Standard Specification for Deformed and Plain Low-Alloy Steel Bars for Concrete Reinforcement.
   5. ASTM A767 - Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.
   6. ASTM A775 - Standard Specification for Epoxy-Coated Steel Reinforcing Bars.
   7. ASTM A884 - Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement.
   8. ASTM A934 - Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars.
   9. ASTM A996 - Standard Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement.

10. ASTM A1064 - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.

D. Concrete Reinforcing Steel Institute:
   1. CRSI 10-MSP - Manual of Standard Practice.
   2. CRSI 10PLACE - Placing Reinforcing Bars.

1.4 SUBMITTALS

A. Refer to Section 01 33 00 "Submittal Procedures" for requirements for submittals.
B. Shop Drawings:
   1. Indicate bar sizes, spacings, locations, splice locations, and quantities of reinforcing steel.
   2. Indicate bending and cutting schedules.
   3. Indicate supporting and spacing devices.
C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
D. Submit certified copies of mill test report of reinforcement materials analysis.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Refer to Section 01 60 00 "Product Requirements" for requirements for transporting, handling, storing, and protecting products.
B. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.
C. Store materials according to manufacturer instructions.
D. Protection:
   1. Protect materials from moisture by storing in clean, dry location remote from construction operations areas.
   2. Provide additional protection according to manufacturer instructions.

1.6 EXISTING CONDITIONS

A. Field Measurements:
   1. Verify field measurements prior to fabrication.
   2. Indicate field measurements on Shop Drawings.

**PART 2 - PRODUCTS**

2.1 REINFORCEMENT

A. Reinforcing Steel:
   1. Comply with ASTM A615.
   2. Yield Strength: 60 ksi.
   3. Billet Bars: Plain.
   4. Finish: Galvanized.

2.2 ACCESSORY MATERIALS

A. Tie Wire:
   1. Minimum 16 gauge, annealed type.

**PART 3 - EXECUTION**

3.1 INSTALLATION

A. Place, support, and secure reinforcement against displacement.
B. Do not deviate from required position beyond specified tolerance.

3.2 FIELD QUALITY CONTROL

A. Materials must be made available for inspection by Engineer prior to installation.

END OF SECTION

## SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

## PART 1 - GENERAL

1.1 SUMMARY

A. Provide all materials and labor necessary to complete all concrete, plain and reinforced, as indicated on Drawings or as specified in these specifications and as required to complete the Project. Work, without limiting the generality thereof, includes:
   1. Installation of concrete to provide concrete mow strip.
   2. Setting of fence and gate posts.
   3. Finishing of concrete as specified herein or as indicated on Drawings.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 03 20 00 "Concrete Reinforcing" for requirements for reinforcing steel and supports.
   3. Section 31 23 16 "Excavation."
   4. Section 31 23 23 "Fill."

1.2 DEFINITIONS

A. Cementitious Materials: The materials that are subject to compliance with requirements, such as Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash, slag cement, other pozzolans, and silica fume.

B. Water-Cementitious Materials Ratio (w/cm): The ratio by weight of water to cementitious materials.

1.3 UNIT PRICE - MEASUREMENT AND PAYMENT

A. Refer to Section 01 20 00 "Price and Payment Procedures" for Contract Sum/Price modification procedures.

B. Concrete - Concrete Mow Strip:
   1. Basis of Measurement:
      a. By linear foot.
   2. Basis of Payment: Includes concrete, placement accessories, consolidating, leveling, troweling, and curing.

1.4 REFERENCE STANDARDS

A. American Concrete Institute:
   1. ACI 301 - Specifications for Structural Concrete.
   2. ACI 305R - Guide to Hot Weather Concreting.
   3. ACI 305.1 - Specification for Hot Weather Concreting.
   4. ACI 306.1 - Standard Specification for Cold Weather Concreting.
   5. ACI 306R - Guide to Cold Weather Concreting.
   6. ACI 308.1 - Specification for Curing Concrete.

B. ASTM International:
   1. ASTM C 31 - Standard Practice for Making and Curing Concrete Test Specimens in the Field.
   2. ASTM C 33 - Standard Specification for Concrete Aggregates.

3. ASTM C 39 - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
4. ASTM C 94 - Standard Specification for Ready-Mixed Concrete.
5. ASTM C 143 - Standard Test Method for Slump of Hydraulic-Cement Concrete.
6. ASTM C 150 - Standard Specification for Portland Cement.
7. ASTM C 173 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
8. ASTM C 231 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
9. ASTM C 260 - Standard Specification for Air-Entraining Admixtures for Concrete.
10. ASTM C 309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
11. ASTM C 494 - Standard Specification for Chemical Admixtures for Concrete.
12. ASTM C 618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
13. ASTM C 685 - Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing.
14. ASTM C 1064 - Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete.
15. ASTM C 1074 - Standard Practice for Estimating Concrete Strength by the Maturity Method.
16. ASTM C 1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation.
17. ASTM C 1602 - Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete.
18. ASTM C 1611 - Standard Test Method for Slump Flow of Self-Consolidating Concrete.
19. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.

1.5 COORDINATION

A. Coordinate placement of control and expansion joint devices with erection of concrete formwork and placement of form accessories.

1.6 SUBMITTALS

A. Product Data: Submit data on the following:
   1. Portland cement.
   2. Fly ash.
   3. Slag cement.
   4. Blended hydraulic cement.
   5. Silica fume.
   6. Performance-based hydraulic cement.
   7. Aggregates.
   8. Admixtures:
      a. Include limitations of use, such as restrictions on cementitious materials, supplementary cementitious materials, air entrainment, aggregates, temperature at time of concrete placement, relative humidity at time of concrete placement, curing conditions, and use of other admixtures.

9. Curing materials:
    a. Include documentation from color pigment manufacturer, indicating that proposed methods of curing are recommended by color pigment manufacturer.
10. Joint fillers.

B. Design Mixtures: For each concrete mixture, include the following:
1. Mixture identification.
2. Minimum 28-day compressive strength.
3. Durability exposure class.
4. Maximum water-cementitious materials ratio.
5. Calculated equilibrium unit weight for lightweight concrete.
6. Slump limit.
7. Air content.
8. Nominal maximum aggregate size.
9. Indicate amounts of mixing water to be withheld for later addition at Project Site, if permitted.
10. Submit separate mix designs if admixtures are required for the following:
    a. Hot and cold weather concrete Work.
    b. Air-entrained concrete Work.

## 1.7 SUSTAINABLE DESIGN SUBMITTALS

A. Refer to Section 01 81 13 "Sustainable Design Requirements" for requirements for sustainable design submittals.

B. Manufacturer's Certificate:
1. Certify that following products meet or exceed specified sustainable design requirements:
    a. Portland cement.
    b. Fly ash.
    c. Blast furnace slag.
    d. Aggregates.
    e. Admixtures.

## 1.8 CLOSEOUT SUBMITTALS

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for requirements for submittals.

B. Project Record Documents: Record actual locations of embedded utilities and components concealed from view in finished construction.

## 1.9 QUALITY ASSURANCE

A. Ready-Mixed Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products that complies with ASTM C 94 requirements for production facilities and equipment.
1. Manufacturer certified in accordance with NRMCA's "Certification of Ready Mixed Concrete Production Facilities."

B. Laboratory Testing Agency Qualifications: A testing agency qualified in accordance with ASTM C 1077 and ASTM E329 for testing indicated and employing an ACI-certified Concrete Quality Control Technical Manager.
   1. Personnel performing laboratory tests are required to be ACI-certified Concrete Strength Testing Technician and Concrete Laboratory Testing Technician, Grade I. Testing agency laboratory supervisors are required to be ACI-certified Concrete Laboratory Testing Technician, Grade II.

1.10 AMBIENT CONDITIONS

A. Refer to Section 01 50 00 "Temporary Facilities and Controls" for requirements for ambient condition control facilities for product storage and installation.
B. Cold-Weather Placement: Comply with ACI 301, ACI 306.1, and as follows:
   1. Protect concrete Work from physical damage or reduced strength caused by frost, freezing actions, or low temperatures.
   2. When average high and low temperature is expected to fall below 40 degrees F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
   3. Do not use frozen materials or materials containing ice or snow.
   4. Do not place concrete in contact with surfaces less than 35 degrees F, other than reinforcing steel.
   5. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.
C. Hot-Weather Placement: Comply with ACI 301 and ACI 305.1, and as follows:
   1. Maintain concrete temperature at time of discharge not to exceed 95 degrees F.
   2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

**PART 2 - PRODUCTS**

2.1 CONCRETE, GENERAL

A. ACI Publications: Comply with ACI 301 unless modified by requirements in the Contract Documents.

2.2 CONCRETE MATERIALS

A. Concrete Source Limitations:
   1. Obtain all concrete mixtures from a single ready-mixed concrete manufacturer for entire Project.
   2. Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant.
   3. Obtain aggregate from single source.
   4. Obtain each type of admixture from single source from single manufacturer.
B. Concrete Components:
   1. Cement:
      a. Comply with ASTM C 150, Type I/II.
      b. Type: Portland.
   2. Fly Ash Calcined Pozzolan: Comply with ASTM C 618, Class C or F.

3. Normal Weight Aggregates:
    a. Comply with ASTM C 33 coarse aggregate or better, graded. Provide aggregates from a single source.
    b. Coarse Aggregate Maximum Size: 1-1/2 inches or 1-inch nominal.
    c. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
4. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures that do not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
    a. Air-Entraining Admixture: ASTM C 260.
    b. Water-Reducing Admixture: ASTM C 494, Type A.
    c. Retarding Admixture: ASTM C 494, Type B.
    d. Water-Reducing and -Retarding Admixture: ASTM C 494, Type D.
    e. High-Range, Water-Reducing Admixture: ASTM C 494, Type F.
    f. High-Range, Water-Reducing and -Retarding Admixture: ASTM C 494, Type G.
    g. Plasticizing and Retarding Admixture:
        1) Comply with ASTM C 1017.
        2) Type II, plasticizing and retarding.
            a) GCP Applied Technologies Inc.
            b) GCP Applied Technologies Inc.

## 2.3 CURING MATERIALS

A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.

## 2.4 CONCRETE MIXTURES, GENERAL

A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, in accordance with ACI 301.
    1. Use a qualified testing agency for preparing and reporting proposed mixture designs, based on laboratory trial mixtures.
B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than Portland cement in concrete as follows:
    1. Fly Ash or Other Pozzolans: 25 percent by mass.
    2. Slag Cement: 50 percent by mass.
    3. Silica Fume: 10 percent by mass.
    4. Total of Fly Ash or Other Pozzolans, Slag Cement, and Silica Fume: 50 percent by mass, with fly ash or pozzolans not exceeding 25 percent by mass, and silica fume not exceeding 10 percent by mass.
    5. Total of Fly Ash or Other Pozzolans and Silica Fume: 35 percent by mass, with fly ash or pozzolans not exceeding 25 percent by mass, and silica fume not exceeding 10 percent by mass.
C. Admixtures: Use in accordance with manufacturer's written instructions.
    1. Use water-reducing high-range water-reducing plasticizing admixture in concrete, as required, for placement and workability.
    2. Use water-reducing and -retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
    3. Use water-reducing admixture in concrete with a w/cm below 0.50.

4. Use corrosion-inhibiting admixture in concrete mixtures where indicated.
5. Use permeability-reducing admixture in concrete mixtures where indicated.

D. Color Pigment: Add color pigment to concrete mixture in accordance with manufacturer's written instructions and to result in hardened concrete color consistent with approved mockup.

2.5 CONCRETE MIXTURES

A. Select proportions for concrete according to ACI 318 without trial mixtures or field test data if approved by Engineer.
B. Performance and Design Criteria:
1. Compressive Strength: 3,000 psi at 7 days.
2. Compressive Strength: 4,000 psi at 28 days.
3. Cement Type: ASTM C 150.
C. Ready-Mixed Concrete: Mix and deliver concrete according to ASTM C 94.

2.6 CONCRETE MIXING

A. Ready-Mix Concrete: Comply with requirements of ASTM C 94, and as herein specified. Delete references for allowing additional water to be added to batch for material with insufficient slump. Addition of water to the batch will not be permitted.
1. During hot weather, or under conditions contributing to rapid setting of concrete, a shorter mixing time than specified in ASTM C 94 may be required. When air temperature is between 85 degrees F and 90 degrees F, reduce mixing and delivery time from 90 minutes to 75 minutes, and when air temperature is above 90 degrees F, reduce mixing and delivery time to 60 minutes.
2. During cold weather, concrete shall not be mixed while the temperature is below 40 degrees without the permission of the Construction Manager. If permission is granted for mixing under such conditions, aggregates or water, or both, shall be heated and the concrete shall be placed at a temperature between 50 degrees F and 80 degrees F.
3. Retempering of concrete by adding water or any other material is not permitted.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Verification of Conditions:
1. Before placing concrete, verify that installation of concrete forms, accessories, and reinforcement, and embedded items is complete and that required inspections have been performed.
2. Do not proceed until unsatisfactory conditions have been corrected.
B. Verify requirements for concrete cover over reinforcement.
C. Verify that anchors, seats, plates, reinforcement, and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with placing concrete.

## 3.2 PREPARATION

A. Previously Placed Concrete:
   1. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent.
   2. Remove laitance, coatings, and unsound materials.
B. In locations where new concrete is doweled to existing work, drill holes in existing concrete, insert steel dowels, and pack solid with nonshrink grout.
C. Remove debris and ice from formwork, reinforcement, and concrete substrates.
D. Remove water from areas receiving concrete before concrete is placed.
E. Provide reasonable auxiliary services to accommodate field testing and inspections, acceptable to testing agency, including the following:
   1. Daily access to the Work.
   2. Incidental labor and facilities necessary to facilitate tests and inspections.
   3. Secure space for storage, initial curing, and field curing of test samples, including source of water and continuous electrical power at Project Site during Site curing period for test samples.
   4. Security and protection for test samples and for testing and inspection equipment at Project Site.

## 3.3 INSTALLATION

A. Placing Concrete:
   1. Place concrete according to ACI 301.
   2. Notify testing Engineer, minimum 24 hours prior to commencement of operations.
   3. Ensure that reinforcement, is not disturbed during concrete placement.
   4. Deposit concrete at final position, preventing segregation of mix.
   5. Place concrete in continuous operation for each panel or section as determined by predetermined joints.
   6. Consolidate concrete.
   7. Maintain records of concrete placement, including date, location, quantity, air temperature, and test samples taken.
   8. Place concrete continuously between predetermined expansion, control, and construction joints.
   9. Do not interrupt successive placement and do not permit cold joints to occur.
B. Concrete Finishing:
   1. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and locations indicated on Drawings.
      a. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route.
      b. Coordinate required final finish with Engineer before application.
C. Curing and Protection:
   1. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
   2. Membrane-Forming Curing Compound: Apply uniformly in continuous operation by power spray or roller in accordance with manufacturer's written instructions.
      a. Recoat areas subject to heavy rainfall within three hours after initial application.
      b. Maintain continuity of coating and repair damage during curing period.

## 3.4 FIELD QUALITY CONTROL

A. Refer to Section 01 40 00 "Quality Requirements" for requirements for inspecting and testing.
B. Refer to Section 01 70 00 "Execution and Closeout Requirements" for requirements for testing, adjusting, and balancing.
C. Testing: Performed by Owner's testing laboratory according to ACI 318.
D. Provide unrestricted access to Work and cooperate with appointed testing irm.
E. Submit proposed mix design to testing firm for review prior to commencement of Work.
F. Concrete Inspections:
    1. Continuous Placement Inspection: Inspect for proper installation procedures.
    2. Periodic Curing Inspection: Inspect for specified curing temperature and procedures.
G. Strength Test Samples:
    1. Sampling Procedures: Comply with ASTM C 172.
    2. Cylinder Molding and Curing Procedures:
        a. Comply with ASTM C 31.
        b. Cylinder Specimens: Field cured.
    3. Testing Firm to Sample concrete and make one set of three cylinders at the discression of Engineer.
H. Cylinder Compressive Strength Testing:
    1. Test Method: Comply with ASTM C 39.
    2. Test Acceptance: According to ACI 318.
    3. Test one cylinder at seven days.
    4. Test one cylinder at 28 days.
    5. Retain one cylinder for testing when requested by Engineer.
    6. Dispose of remaining cylinders if testing is not required.

END OF SECTION

## SECTION 31 10 00 - SITE CLEARING

## PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Protecting existing vegetation to remain.
   2. Removing existing vegetation.
   3. Clearing and grubbing.
   4. Stripping and stockpiling topsoil.
   5. Stripping and stockpiling rock.
   6. Removing above- and below-grade site improvements.
   7. Temporary erosion and sedimentation control.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 01 50 00 "Temporary Facilities and Controls" for temporary erosion- and sedimentation-control measures.

1.2 DEFINITIONS

A. Subsoil: Soil beneath the level of subgrade; soil beneath the topsoil layers of a naturally occurring soil profile, typified by less than 1 percent organic matter and few soil organisms.

B. Surface Soil: Soil that is present at the top layer of the existing soil profile. In undisturbed areas, surface soil is typically called "topsoil," but in disturbed areas such as urban environments, the surface soil can be subsoil.

C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil; the zone where plant roots grow.

D. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil; the zone where plant roots grow. Its appearance is generally friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects larger than 2 inches in diameter; and free of weeds, roots, toxic materials, or other nonsoil materials.

E. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction and indicated on Drawings.

F. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction.

G. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

1.3 MATERIAL OWNERSHIP

A. Except for materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.4 INFORMATIONAL SUBMITTALS

A. Existing Conditions: Documentation of existing trees and plantings, adjoining construction, and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.
   1. Use sufficiently detailed photographs or video recordings.
   2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plant designated to remain.
B. Record Drawings: Identifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions.
C. Burning: Documentation of compliance with burning requirements and permitting of authorities having jurisdiction. Identify location(s) and conditions under which burning will be performed.

1.5 FIELD CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
   1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
   2. Provide alternate routes around closed or obstructed trafficways if required by Owner or authorities having jurisdiction.
B. Improvements on Adjoining Property: Authority for performing site clearing indicated on property adjoining Owner's property will be obtained by Owner before award of Contract.
   1. Do not proceed with work on adjoining property until directed by Engineer.
C. Utility Locator Service: Notify Texas 811 for area where Project is located before site clearing.
D. Tree- and Plant-Protection Zones: Protect according to requirements in Section 01 56 39 "Temporary Tree and Plant Protection."
E. Soil Stripping, Handling, and Stockpiling: Perform only when the soil is dry or slightly moist.

**PART 2 - PRODUCTS**

2.1 MATERIALS

A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Section 31 20 00 "Earth Moving."
   1. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.

## PART 3 - EXECUTION

### 3.1 PREPARATION

A. Protect and maintain benchmarks and survey control points from disturbance during construction.
B. Verify that trees, shrubs, and other vegetation to remain or to be relocated have been flagged and that protection zones have been identified and enclosed according to requirements in Section 01 56 39 "Temporary Tree and Plant Protection."
C. Protect existing site improvements to remain from damage during construction.
    1. Restore damaged improvements to their original condition, as acceptable to Owner.

### 3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.
B. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
C. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
D. Remove erosion and sedimentation controls, and restore and stabilize areas disturbed during removal.

### 3.3 TREE AND PLANT PROTECTION

A. Protect trees and plants remaining on-site according to requirements in Section 01 56 39 "Temporary Tree and Plant Protection."
B. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations according to requirements in Section 01 56 39 "Temporary Tree and Plant Protection."

### 3.4 EXISTING UTILITIES

A. Locate, identify, and disconnect utilities indicated to be abandoned in place.
B. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others, unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
    1. Notify Engineer not less than two days in advance of proposed utility interruptions.
    2. Do not proceed with utility interruptions without Engineer's written permission.

### 3.5 SITE IMPROVEMENTS

A. Remove existing fence, posts, foundations, and fill post holes with material removed from construction of new fence.

3.6 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.

END OF SECTION

## SECTION 31 23 16 - EXCAVATION

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Soil densification.
   2. Excavating for slabs on grade.
B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 31 23 23 "Fill" for backfilling at building perimeter and Site structures, and fill under slabs on grade, pavement, and landscaped areas.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. No separate payment will be made for materials or labor. Item should be considedred subsidiary to most appropriate bid item.

1.3 REFERENCE STANDARDS

A. Local utility standards when working within 24 inches of utility lines.

### PART 2 - PRODUCTS (Not Used)

### PART 3 - EXECUTION

3.1 PREPARATION

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for requirements for installation preparation.
B. Existing Utilities:
   1. Notify Texas 811 to locate and remove existing utilities.
   2. Protect from damage utilities indicated to remain.

3.2 EXCAVATION

A. Underpin adjacent structures which may be damaged by excavation Work.
B. Excavate subsoil to accommodate building foundations, slabs on grade.
C. Notify Engineer of unexpected subsurface conditions.
D. Remove excavated material from Site.

## 3.3 FIELD QUALITY CONTROL

A. Refer to Section 01 40 00 "Quality Requirements" for requirements for inspecting and testing.
B. Refer to Section 01 70 00 "Execution and Closeout Requirements" for requirements for testing, adjusting, and balancing.
C. Inspecting: Request visual inspection of bearing surfaces by Engineer before installing subsequent Work.

## 3.4 PROTECTION

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for requirements for protecting finished Work.
B. Prevent displacement or loose soil from falling into excavation, and maintain soil stability.
C. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing.
D. Protect structures, utilities, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards that may be created by earth operations.

END OF SECTION

## SECTION 31 23 23 - FILL

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Backfilling site structures to subgrade elevations.
   2. Fill under slabs on grade.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.
   2. Section 03 30 00 "Cast-in-Place Concrete" for concrete materials.
   3. Section 31 23 16 "Excavation" for backfilling of building foundations and utilities within building perimeter.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. No separate payment will be made for materials or labor. Item should be considered subsidiary to most appropriate bid item.

1.3 REFERENCE STANDARDS

A. ASTM International:
   1. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3).

### PART 2 - PRODUCTS

2.1 MATERIALS

A. Subsoil Fill: Obtained from on-site excavation.

### PART 3 - EXECUTION

3.1 PREPARATION

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for requirements for installation preparation.
B. Compact subgrade to specified density requirements for subsequent backfill materials.

3.2 BACKFILLING

A. Backfill areas to contours and elevations.
B. Systematically backfill to allow maximum time for natural settlement.
C. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces, and do not backfill with frozen materials.
D. Place fill material in continuous layers and compact.

E. Make gradual grade changes and blend slope into level areas.
F. Remove surplus backfill materials from Site.
G. Leave fill material stockpile areas free of excess fill materials.

## 3.3 FIELD QUALITY CONTROL

A. Refer to Section 01 40 00 "Quality Requirements" for requirements for inspecting and testing.
B. Refer to Section 01 70 00 "Execution and Closeout Requirements" for requirements for testing, adjusting, and balancing.
C. Testing:
    1. Laboratory Material Testing: Comply with ASTM D698.
    2. In-Place Compaction Testing:
        a. Density Tests: Comply with ASTM D6938.
        b. Moisture Tests: Comply with ASTM D6031.
    3. If tests indicate that Work does not meet specified requirements, remove Work, replace, compact, and retest.
    4. Testing Frequency: As directed by Engineer.
    5. Proof-roll compacted fill surfaces under slabs on grade.

## 3.4 PROTECTION

A. Refer to Section 01 70 00 "Execution and Closeout Requirements" for requirements for protecting finished Work.
B. Reshape and recompact fills subjected to vehicular traffic during construction.

## 3.5 ATTACHMENTS

A. Fill Under Concrete Paving:
    1. Compact subsoil to 95 percent of maximum density.

END OF SECTION

## SECTION 33 31 13.53 – HIGH-SECURITY FENCES AND GATES

### PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. This Specification covers material requirements and installation of security fencing.
   2. This Specification covers the selection of metallic fence systems to delay unwanted access into facilities. Security fence shall conform to specified standard sizes and dimensions noted in this Specification.

B. Related Requirements:
   1. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCED STANDARDS

A. ASTM A123 - Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
B. ASTM A307 - Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60,000 PSI Tensile Strength.
C. ASTM F934 - Specification for Colors for Polymer-Coated Chain Link Fence Materials.
D. ASTM F1043 - Specification for Strength and Protective Coatings on Steel Industrial Fence Framework.
E. ASTM F1083 - Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures.
F. ASTM F1267 - Specification for Metal, Expanded, Steel.
G. ASTM F2453 - Standard Specification for Welded Wire Mesh Fence Fabric.
H. ASCE/SEI 7-05 - Minimum Design Loads for Buildings and Other Structures.

1.3 PERFORMANCE REQUIREMENTS

A. Delegated-Design Submittal: For fences framework indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified Professional Engineer responsible for their preparation.
B. Structural Performance: Fences framework shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated according to ASCE.
C. Minimum Post Size: As shown on Plans.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified factory-authorized service representative.
B. Product Certificates: For each type of fence, operator, and gate, from manufacturer.
C. Field quality-control reports.

1.5 SPARE MATERIALS

A. Provide 10 spare fence panels and 3 percent spare materials for all fence components including but not limited to fence panels, posts, and hardware for equipment that is damaged during shipping, storage, installation, or after the construction is completed.

1.6 PROJECT CONDITIONS

A. Field Measurements: Verify layout information for fences and gates shown on Drawings in relation to property survey and existing structures. Verify dimensions by field measurements.

1.7 SCHEDULING DELIVERIES TO THE SITE

A. Provide 24-hour advance notice of all deliveries to the site so that appropriate arrangements can be made for unloading the materials.

1.8 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of security fences and gates that fail in materials or workmanship within specified warranty period.
   1. Failures include, but are not limited to, the following:
   2. Deflection of fence material beyond design limits.
   3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
   4. Faulty operation of gate operators and controls.
   **5.** Warranty Period: Five years from date of Substantial Completion.

**PART 2 - PRODUCTS**

2.1 GENERAL

A. All steel material shall be good commercial quality, galvanized steel.
B. All pipes shall be galvanized, one piece without joints. Furnish moisture proof caps for all posts.
C. Zinc coating shall be smooth and essentially free from lumps, globs, or points.
D. Miscellaneous materials shall be galvanized then Marin Fusion Bond coated.

2.2 SUGGESTED MANUFACTURER

A. Cochrane.

2.3 DESCRIPTION OF FENCE SYSTEM

A. Post:
   1. Post shall be 12 feet long Cochrane Taper Locking Post.
   2. Post width shall be 3-11/32 inches - tapering to 1-49/64 inches with a depth of 3-11/32 inches.
   3. Post shall include ‘Locking Recess Mechanism’ to secure panel edge.
   4. Post finish shall be galvanized then Structural Marine coated.
B. Panel: Parkland Rigid Fence Panel.
   1. Panel shall be 10 feet - 10-1/8 inch width and 7 feet in height.
   2. Panel aperture size (centers) shall be 3 inches by 2 inches.
   3. Coated wire diameter will be 9/64 inches.
   4. The panel shall be reinforced with 4 by 1-31/32 deep ‘V’ formation horizontal recessed bands (rigidity).

5. Panel shall have 2 by 70-inch flanges along sides (internal fixtures - all fixtures shall be on the inside of fence line).
6. Panel shall 1 by 90-inch flange along top and 1 by 30-inch flange along toe (integrate rigid angle, anti-scale locking device).
7. Panel post shall have a flush panel finish with no climbing aid.
8. Panel shall be affixed to post over 48 line wires using eight double bolt comb clamps and 8 single bolt comb clamps using 24 Anti-vandal bolts.
9. Panel and fixtures shall be galvanized then Marine Fusion Bond coated.

C. Additions:
1. A 3-15/16-inch high toughened steel Shark Tooth spike shall be affixed to panel edge, internally at 5-229/32 inch intervals using Anti-vandal bolts.
2. Spike finish shall be galvanized then Marine Fusion Bond coated.

D. Fence Corner Configuration:
1. The fence configuration should not have any sharp corners and all angles at changes of direction should be a minimum of 130 degrees.

2.4 GATES

A. Swing Gates:
1. Gate Size: 10 feet wide by 7 feet high Single Leaf.
2. Gate Size: 40 feet wide by 7 feet high Double Leaf.
3. All connections and joints shall be welded to form rigid frames or assembled with corner fittings.
4. Hinges shall not twist or turn under the action of the gate, shall be so arranged that a closed gate cannot be lifted off the hinges to obtain entry.

B. Swing Gates:
1. Gate Size: N/A.
2. Gate frame fabrication and miscellaneous items shall be similar to Swing Gates.
3. All fittings, brackets, and rear wheel tracks shall be standard manufactured products for the intended application.

2.5 TEMPORARY FENCE

A. Fence material, Posts, Rails, Caps, Barbed Wire Security Top: To match or exceed existing fence.
B. Height: To match or exceed existing fence height.

**PART 3 - EXECUTION**

3.1 EXAMINATION

A. Examine areas and conditions, with Installer present, for compliance with requirements for site clearing, earthwork, pavement work, and other conditions affecting performance of the Work.
1. Do not begin installation before final grading is completed unless otherwise permitted by the Owners Representative.
2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Contractor shall use Ground Penetrating Radar (GPR) or other non-destructive means to locate existing underground obstacles.
B. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet or line of sight between stakes. Indicate locations of utilities, underground structures, conduits, benchmarks, and property monuments.

3.3 INSTALLATION, GENERAL

A. Install all fencing and gates in accordance with the Drawings, Specifications, instructions, and as specified lines and grades indicated. Line posts shall be spaced at intervals of 11 feet 1-1/2 inches. Terminal posts shall be set at abrupt changes in vertical and horizontal alignment.

3.4 FENCE INSTALLATION

A. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacing indicated, in firm, undisturbed soil. The ground surface irregularities along the fence line shall be eliminated to the extent necessary.
B. Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.
    1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.
    2. Concrete Fill: Place concrete around posts and in trench to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter. Concrete shall be allowed to cure for three das prior to installing any additional components to the posts.
        a. Exposed Concrete: Post concrete is to be finished at the same elevation as concrete grade beam; shape and smooth to shed water.
C. Terminal Posts: Locate and install terminal end, corner, and gate posts as required by Cochrane.
D. Line Posts: Space line posts uniformly as required by Cochrane.
E. Fasteners: Install security bolts for securing the fence panels to the posts. All fasteners shall be installed on the secured side of the fence.
F. Concrete footings shall be carried down to at least the depth indicated on the design documents and shall not be smaller than the dimensions shown. Where a rock layer is encountered within the required depth to which the post is to be erected, a hole of a diameter slightly larger than the largest dimension of the post may be drilled into the rock and post grouted in. Then the regular concrete footing shall be placed between the top of the rock and the top of the footing elevation as shown on the design documents. Posts shall be approximately centered in their footings. All concrete shall be placed promptly and consolidated by tamping or other approved methods.
G. Where the ground is firm enough to permit excavation of the post hole to neat lines, the concrete may be placed without forms by completely filling the hole. Curing compound to be applied as stated in Section 03 30 00 “Cast-In-Place Concrete.” All excess material from footings, including loose material used for curing, shall be disposed of as directed by Engineer.

H. Where the ground cannot be satisfactorily excavated to neat lines, forms shall be used to place concrete for footings. Under these conditions the earth and forms coming in contact with the concrete shall be moistened and all ponded water shall be removed from the hole prior to placing concrete. When forms are removed, the footing shall be backfilled with moistened material, and thoroughly tamped. Curing compound to be applied as stated in Section 03 30 00 "Cast-In-Place Concrete." All excess material from footings, including loose material used for curing, shall be disposed of as directed.

3.5 SIGNAGE

A. Contractor shall be responsible for relocating existing signage from existing chain link fence to new high-security fence where a single layer of high-security fence will be installed. Provide additional signage as required by Owner.

3.6 TEMPORARY FENCE

A. Contractor to erect temporary fence prior to the removal of existing fence. Length of temporary fence to be determined by Contractor and their ability to maintain determined length of fence around Work area. Contractor to move temporary fence to new Work area after completion and acceptance of Work completed in previous workspace.
B. Temporary fence to be secured to either new or existing fence. Material used to secure temporary fence to new fence must not damage new fence. Any damage to new or existing fence will be repaired by Contractor at Contractor's expense. Method of securing fence to existing or new fence must be able to withstand occasional heavy winds.
C. Contractor to determine best way to erect temporary fence to ground to secure fence and to prevent it from falling due to wind and/or other weather phenomenon.

END OF SECTION

Parkhill

Midland International Air & Space Port

## CONSTRUCTION SAFETY AND PHASING PLAN (CSPP)

# MIDLAND AIRPARK
# NORTH FENCE REPLACEMENT
## Midland, Texas

Parkhill
1700 W Wall St, Suite 100
Midland, TX 79701
432.697.1447

June | 2023
Parkhill Project #01618422

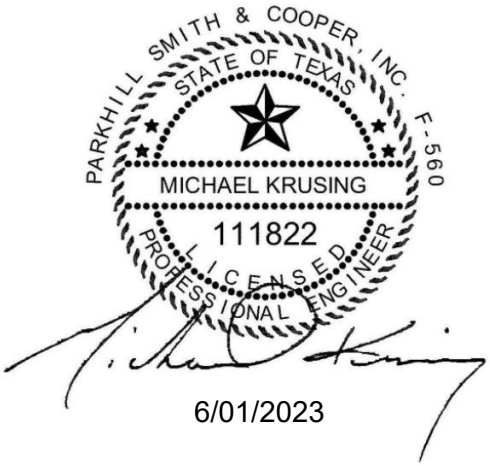
PACKET 21.133 November 14, 2023

Parkhill

Midland International Air & Space Port

# CONSTRUCTION SAFETY AND PHASING PLAN (CSPP)

# MIDLAND AIRPARK (MDD)
# NORTH FENCE REPLACEMENT
## Midland, Texas




June | 2023
Parkhill Project #01618422

PACKET 21.134 November 14, 2023

Parkhill

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APPENDICES

APPENDIX A: CONSTRUCTION SAFETY AND PHASING PLAN

APPENDIX B: SAFETY DETAILS

APPENDIX C: ADVISORY CIRCULAR 150/5370-2G, OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION

APPENDIX D: FAA FORM 7460-1, NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION (BLANK)

APPENDIX E: FAA CSPP REVIEW CHECKLIST

**Project Name:** North Fence Replacement

**Sponsor's Agent:**
Ms. Justine Ruff, Director of Airports
Midland Airpark (MDD)
PO Box 60305
Midland, Texas 79711
432.560.2200

**Consultant/Engineer:**
Mr. Michael Krusing, PE
PARKHILL
4222 85th Street
Lubbock, Texas 79423
806.473.2799

Mr. Sean Ellis, PE
PARKHILL
1700 West Wall Street
Midland, Texas 79701
432.697.1447

**Engineer's Project No.:** 01618422

# 1. COORDINATION

## A. PROJECT MEETINGS

Predesign Conference was held on November 30, 2022. Items discussed included Project scope, phasing, design, schedule, survey, unique Project elements/areas of potential concern, and utilities. Attendees included City of Midland and Parkhill personnel.

Prebid Conference will be held in accordance with FAA AC 150/5300-12B, Prebid Conference will be held for Consulting Engineer and City of Midland to go over Project details and allow contractors to ask Project-specific questions. Prebid conference will be led by the City of Midland with assistance from Parkhill.

Preconstruction Meeting will be held before issuance of the Notice to Proceed (NTP) in accordance with FAA AC 150/5370-12B. At minimum, required attendees will be Airport Manager, Consulting Engineer, Resident Project Representative (RPR), Prime Contractor, and all subcontractors.

Construction Progress Meetings will be held throughout Project duration, typically at monthly intervals. At minimum, required attendees will be Airport administrative staff, Consulting Engineer, RPR, Prime Contractor and all subcontractors performing work during the current period. Construction phasing and safety will be a standing item at all construction progress meetings. Other ongoing agenda items will include:

- Project Schedule
- Safety/Security
- Project Coordination
- Construction Issues
- Submittals Review
- Request for Information (RFI) Review
- Change Orders Review
- Environmental Issues
- Quality Assurance (Test Reports)

- Record Drawings
- Pay Application Review
- General Discussion

Consulting Engineer will prepare and distribute meeting minutes for all meetings.

### B. SCOPE

- Removal of existing 6-foot chain-link fence and installation of 8-foot security fencing, and 4-foot wide concrete mow strip.

Any changes in Project Scope will require a revision to the CSPP, which must be approved by MDD.

### C. FAA AIR TRAFFIC CONTROL TOWER (ATCT) COORDINATION

MDD does not have an active air traffic control tower; therefore, Contractor shall coordinate all communication with MDD, Parkhill, and/or FAA.

## 2. PHASING

Refer to Phasing Plans included in Appendix A for limits of each phase.

### A. BID PACKAGE (90 CALENDAR DAYS TOTAL)

- Project to be completed in single phase.
- Construction Phasing Drawings may be reviewed in Appendix A.

### B. PROJECT SCHEDULE

Contractor must submit a Project Schedule and Phasing Plan at/before the preconstruction meeting. Any changes made to Project Schedule or Phasing will require a revision to the CSPP, which must be approved by MDD and the FAA.

## 3. AREAS/OPERATIONS AFFECTED BY CONSTRUCTION

No protected surfaces will be affected by construction on this Project.

## 4. NAVIGATION AID (NAVAID) PROTECTION

### A. NAVAIDS IN CLOSE PROXIMITY TO WORK AREA

No NAVAIDs are near work area; therefore, no physical impact to any NAVAIDs is anticipated.

# 5. CONTRACTOR ACCESS

## A. GENERAL

MDD to provide Airport visitor/contractor access procedures.

## B. AIRPORT OPERATIONS AREA (AOA)

Airport Operations Area (AOA) is defined as any portion of Airport property normally secured against unauthorized entry. AOA includes all areas specifically reserved for operations of aircraft, aircraft support equipment, and personnel. Generally, AOA is defined by the Airport's outer security fencing and any building forming part of secured perimeter. When necessary to cross pavement surface on airfield, Contractor shall inspect all paved surfaces for Foreign Object Debris (FOD) daily and before reopening pavement surface to air traffic. Final inspection shall be by MDD. Contractor shall not leave opening in secure fence at any time.

## C. CONTRACTOR'S ENTRANCE GATE

Adjacent to Contractor's entrance gate and outside AOA, Contractor shall provide a parking area for Contractor employees' personal automobiles. Engineer directs limits of parking/storage area. At Project completion, any damage done by Contractor to this area shall be repaired to Engineer satisfaction at no additional cost to Owner. Repairs shall include but not be limited to regrading, reseeding, or repaving damaged areas.

## D. CONTRACTOR'S PLANT SITE, STORAGE, AND OFFICE AREA

Contractor will be held completely responsible for any damage or deterioration in areas allowed for Contractor use as well as maintenance of areas and dust control for Project duration. Direct negotiation may be conducted with Airport Manager for areas desired. Areas used by Contractor may be subject to rental rates and fees as identified by Airport Manager.

Areas occupied by Contractor and forces must be completely restored by Contractor, at Contractor expense, including but not limited to regrading disturbed areas, complete removal of debris or any other material brought onto site by Contractor, and complete replacement of topsoil, turf, asphalt pavement, concrete slabs, or drives, etc., that is worn, deteriorated, or damaged while Contractor and forces occupy the area. All restoration shall be to Airport Manager satisfaction.

Before moving into unpaved area, Contractor shall clear and grub area, then remove and stockpile a 6-inch minimum of existing topsoil. After Project completion and clearing site of materials, equipment, and debris, Contractor shall replace, spread, and grade salvaged topsoil. Follow by seeding and fertilizing.

Accomplish all restoration activities in accordance with applicable Technical Specifications.

No direct payment will be made to Contractor for preparing or restoring plant site haul routes, storage, or office areas.

For all projects with onsite concrete or hot-mix asphalt batch plant as well as projects involving pug-mill produced material, a concrete or asphalt-paved material stockpile area is required. All materials to be incorporated into concrete, hot mix, CTB, or other similar material, must be stockpiled on a specially prepared concrete or asphalt pad so stockpile contamination does not occur. Restore stockpile area to pre-Project conditions.

## E. VEHICLE ESCORT

All vehicles (such as supplier vehicles), responsible to Contractor, entering AOA, shall be escorted by an approved Contractor escort vehicle from point of AOA entry to construction site. Escort vehicle shall be clearly identified with standard FAA markings/flags and Contractor name.

Escort vehicle will be responsible for leading supply, delivery, or other vehicles across active airfield. To facilitate safe movement of escort and escorted vehicles, Escort vehicle driver shall be familiar with airport security and safety procedures. Escort vehicle shall be equipped with FAA radio as specified in Article 5.F - Two-Way Radio Communications, and Escort vehicle driver shall be familiar with FAA radio, its operation, and obey all instructions from Air Traffic Control Tower.

## F. TWO-WAY RADIO COMMUNICATIONS

Contractor must equip vehicles used by Project superintendent and Project foremen on the Project with radio receiver/transmitters for maintaining direct communication with Airport personnel. Contractor will provide minimum two radios, as specified, consisting of Two Icom America, Model IC-A5 (or latest equivalent model), with AC charger, DC charger, carrying case, flexible antenna, headset adapter cable, headset desk charger, multi-charger, and two 760 mAH heavy rechargeable battery packs.

Communication will be required at a 122.700 MHz frequency for Midland ground control. Radio contact is required when construction operations are in the vicinity of, or when crossing any active runway, taxiway, or apron, or as directed by MDD. Contractor must provide enough radios to maintain communication in all areas of work.

## G. CONTRACTOR'S SAFETY PLAN (CSP)

Contractor shall submit a Contractor's Safety Plan (CSP) as part of the submittal process before starting construction that must always be followed. MDD reserves the right to have Contractor amend CSP any time if concerns arise.

# 6. WILDLIFE MANAGEMENT

## A. TRASH

Contractor must dispose all trash in a covered trash can or other method, not allowing trash to become a hazard or animal attractant.

## B. STANDING WATER

Contractor shall minimize standing water.

## C. POORLY MAINTAINED FENCING AND GATES

Contractor shall maintain any fencing or gates in good condition, proper working order, and gap under fence or gate shall not exceed 3 inches.

## D. DISRUPTION OF EXISTING WILDLIFE HABITAT

In event of wildlife habitat, Contractor will notify MDD and Engineer immediately.

# 7. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

Contractor shall train and emphasize to construction site employees the need for continuous Foreign Object Debris (FOD) checks on or near active airfield pavement.

Contractor must conduct FOD checks before and after each construction shift, at a minimum, and monitor nearby active pavements throughout construction shift.

# 8. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

Hazardous materials will be handled and stored per latest revision to FAA Advisory Circular 150/5370-2G - Operational Safety on Airports during Construction. Contractor must be prepared to immediately contain and clean spills resulting from fuel, oil, petroleum products, or hydraulic fluid leaks. Transportation and handling of other hazardous materials on the Airport requires additional special procedures as addressed in latest revisions to FAA Advisory Circular 150/5320-15 - Management of Airport Industrial Waste. All spills must be immediately reported to MDD at 432.560.2200.

# 9. CONSTRUCTION ACTIVITY NOTIFICATIONS

## A. RESPONSIBLE REPRESENTATIVES / POINTS OF CONTACT

**MDD**

| Name | Position | Phone |
|---|---|---|
| Aaron Easton | Airport Manager | 432.560.2200 |

**Parkhill, Engineer/Consultant**

| Name | Position | Phone |
|---|---|---|
| Michael Krusing, P.E. | Project Manager | 806.473.2200 |
| Sean Ellis, P.E. | Project Engineer | 432.697.1447 |

**_____TBD_____, Resident Engineer**

| Name | Position | Phone |
|---|---|---|
| | | |
| | | |

**_____TBD_____, Quality Assurance Testing**

| Name | Position | Phone |
|---|---|---|
| | | |
| | | |

***** Insert Contractor and subcontractor personnel information upon Project award. *****

**_____, Contractor**

| Name | Position/Trade | Phone |
|---|---|---|
| | | |
| | | |

**_____, Subcontractor**

| Name | Position/Trade | Phone |
|---|---|---|
| | | |
| | | |

**_____, Subcontractor**

| Name | Position/Trade | Phone |
|---|---|---|
| | | |
| | | |

## B. NOTICES TO AIRMEN (NOTAM)

MDD is responsible for issuing any Notice to Airmen (NOTAM) required before Project begins, as Project progresses, and will cancel NOTAMs at completion of intermediate construction phases of Project, as required. Contractor shall closely coordinate anticipated and required NOTAMs with MDD and provide MDD at least 72 hours' notice of necessary NOTAMs.

## C. EMERGENCY NOTIFICATION PROCEDURES

In case of emergency, Contractor shall immediately call 911 first then MDD at 432.560.2200.

## D. FAA NOTIFICATION

Contractor will notify Consulting Engineer and MDD 72 hours in advance of any workaround NAVAIDs or shutdowns affecting NAVAIDs owned by FAA. Contractor shall notify NAVAIDs owned by a separate party 72 hours in advance of any work around or shutdowns of NAVAIDs.

## 10. INSPECTION REQUIREMENTS

### A. DAILY INSPECTIONS

Contractor shall perform daily safety, security, and phasing inspections to ensure CSPP compliance. Document inspections in Contractor's Daily Logs/Quality Control Logs.

Contractor must submit a Quality Control Plan (QCP) for Owner or designated representative review before any construction. QCP will address specific requirements for inspection of individual specification/pay items including test method, sampling point, testing frequency for each item, and proposed remediation action for each item if it does not meet Specification requirements. QCP will also provide direction on developing inspection reports and what to include. QCP will likely be developed in whole or in conjunction with selected Quality Control firm. QCP shall include and address Construction Management Plan (CMP) requirement.

### B. FINAL INSPECTIONS

MDD will perform final safety inspection before opening any airfield pavement to aircraft.

## 11. UNDERGROUND UTILITIES

Contractor shall locate, mark, and protect all utilities and infrastructure during construction. Location of utilities shall include notification of Texas One Call 811 system, as well as coordination with MDD.

## 12. PENALTIES

Contractor pays all penalty fines associated with any safety violation.

## 13. SPECIAL CONDITIONS

### A. FAA FORM 7460-1

1. Consulting Engineer will prepare and submit FAA Form 7460-1 for Project scope and proposed Construction Safety and Phasing Plan (CSPP).
2. Contractor shall submit Form 7460-1 on all equipment over 20 feet high.
3. A blank Form 7460-1 - Notice of Proposed Construction or Alteration, is included in Appendix D. Contractor shall submit supplemental FAA Form 7460-1 to FAA at least 45 days prior to utilization of equipment more than 20 feet in height.

### B. ONSITE BURNING AND BLASTING

Onsite burning and blasting are prohibited.

### C. GUN PROHIBITION ON AIRPORT PROPERTY

No firearms or guns are allowed on MDD property.

## 14. RUNWAY AND TAXIWAY VISUAL AIDS

Airport marking, lighting, signs, and visual NAVAIDs must be clearly visible to pilots, not misleading, confusing, or deceptive. All must be secured in place to prevent movement by prop wash, jet blast, wing vortices, or other wind currents and constructed of materials to minimize damage to aircraft in the event of inadvertent contact.

Lighting, signs, and NAVAIDs located within object-free area must be frangible.

## 15. MARKING AND SIGNS

### A. ACCESS ROUTE

Contractor required to mark access routes and haul routes with lathes and flag tape.

### B. APPROVED WORK AREAS

Contractor must mark approved work areas with lathes and flag tape to ensure construction personnel and equipment remain in approved areas.

## 16. HAZARD MARKING AND LIGHTING

### A. EQUIPMENT

- Contractor vehicles shall be clearly identified with Contractor name, standard FAA marking, lighting, and/or flags. Rotating amber beacons are required for all nighttime work.
- Contractor shall submit 7460s on all equipment over 20 feet in height.
- Any request to use nighttime lighting will be provided in writing two weeks prior to requested start time, from Contractor to Engineer and MDD for approval.

### B. WORK AREAS

- Contractor shall provide temporary, low-profile barricades to delineate safe operating areas for aircrafts.
- Barricades shall have flashing red lights.
- Contractor must inspect lights each evening and immediately replace any lights not operating correctly.
- Contractor will be fined for non-working lights as indicated in Project Specifications.
- Line perimeter construction area with low-profile aviation barricades spaced at 5 feet.

# 17. PROTECTION

## A. RUNWAY SAFETY AREA (RSA)

No construction or material stockpile shall occur within an active RSA. Contractor shall mark out RSA before construction. RSA is 150 feet wide and extends 300 feet beyond runway end for Runway 07/25. The Runway 16/34 RSA is 150 feet wide and extends 240 feet beyond runway end.

## B. RUNWAY OBJECT FREE AREA (ROFA)

No material stockpile will occur within an active ROFA. ROFA is 500 feet wide and 300 feet beyond runway end for Runway 07/25. The Runway 16/34 ROFA is 500 feet wide and 300 feet beyond runway end.

## C. TAXIWAY SAFETY AREA (TSA)

No construction or material stockpile shall occur within an active TSA. TSA is 79 feet wide.

## D. TAXIWAY OBJECT FREE AREA (TOFA)

No material stockpile shall occur within an active TOFA. TOFA is 124 feet wide.

## E. OBSTACLE FREE ZONE (OFZ)

No construction activity or material stockpile will penetrate OFZ.

## F. RUNWAY APPROACH/DEPARTURE SURFACES

No construction activities will penetrate approach/departure surfaces.

## G. OPEN TRENCHES

Open trenches are not permitted within RSA of an open runway or TSA of an open taxiway. Contractor shall prominently mark any open trench or excavation at construction site with lighted barricades.

## H. SAFETY INFORMATION

Refer to Appendix B - Safety Details, for safety information.

## I. JET BLAST

Contractor shall take precautions to minimize effects of jet blast, particularly in areas near runway threshold.

## J. ELECTRICAL LOCK OUT/TAG OUT REQUIREMENTS

Contractor shall prepare lockout/tag out plan and communicate procedures to all staff.

## K. UNUSED RUNWAY

Where shown on Construction/Safety Plan, Contractor shall denote unusable runway pavement using low-profile aviation barricades. Refer to Plans for details.

# 19. OTHER CONSTRUCTION LIMITATIONS

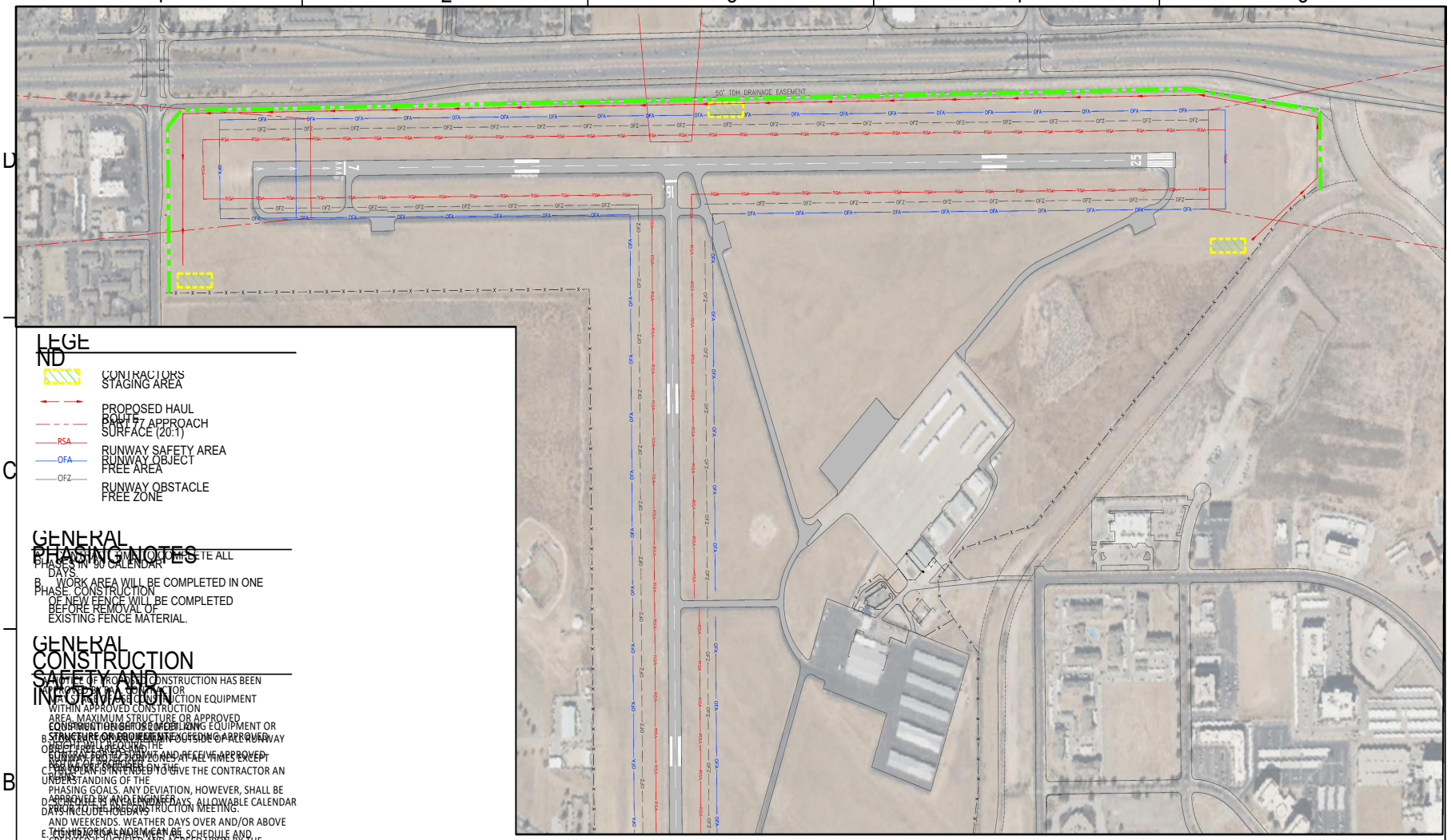
## A. PROHIBITIONS

- No use of tall equipment over 20 feet unless a 7460-1 determination letter is issued for such equipment.
- No use of open-flame welding or torches.
- No use of electrical blasting caps.
- No use of flare pots.

## B. RESTRICTIONS

- Any construction suspension required during specific airport operations will be coordinated by Engineer, Owner, and Contractor during construction.
- Areas that cannot be worked on simultaneously, will be coordinated by Engineer, Owner, and Contractor during construction.
- Refer to Article 16 – Hazard Marking and Lighting, for night construction requirements.
- Seasonal construction restrictions will be coordinated by Engineer, Owner, and Contractor during construction.

# APPENDIX A: CONSTRUCTION SAFETY AND PHASING PLAN




## LEGEND

- CONTRACTORS STAGING AREA
- PROPOSED HAUL ROUTE
- PART 77 APPROACH SURFACE (20:1)
- RSA — RUNWAY SAFETY AREA
- OFA — RUNWAY OBJECT FREE AREA
- OFZ — RUNWAY OBSTACLE FREE ZONE

## GENERAL PHASING NOTES

A. CONTRACTOR SHALL COMPLETE ALL PHASES IN 90 CALENDAR DAYS.

B. WORK AREA WILL BE COMPLETED IN ONE PHASE. CONSTRUCTION OF NEW FENCE WILL BE COMPLETED BEFORE REMOVAL OF EXISTING FENCE MATERIAL.

## GENERAL CONSTRUCTION SAFETY AND PHASING INFORMATION

A. [illegible] CONSTRUCTION HAS BEEN APPROVED BY THE CONTRACTOR

B. [illegible] CONSTRUCTION EQUIPMENT WITHIN APPROVED CONSTRUCTION AREA. MAXIMUM STRUCTURE OR APPROVED CONSTRUCTION EQUIPMENT HEIGHT [illegible] OBJECT FREE AREA.

C. [illegible] CONTRACTOR SHALL [illegible] AND RECEIVE APPROVED [illegible] BEFORE [illegible] ON THE [illegible] CONSTRUCTION IS INTENDED TO GIVE THE CONTRACTOR AN UNDERSTANDING OF THE PHASING GOALS. ANY DEVIATION, HOWEVER, SHALL BE APPROVED BY AND ENGINEER.

D. [illegible] IS CALENDAR DAYS. ALLOWABLE CALENDAR DAYS INCLUDE HOLIDAYS AND WEEKENDS. WEATHER DAYS OVER AND/OR ABOVE THE HISTORICAL NORM CAN BE [illegible] AND PRECONSTRUCTION MEETING.

E. THE CONTRACTOR SHALL [illegible] SCHEDULE AND [illegible] AGREED UPON BY THE ENGINEER AND [illegible] SCHEDULE [illegible] SEE GOALS LISTED ON [illegible] CONSTRUCTION.

F. [illegible] OR SHALL MAINTAIN ALL INSIDE PAVEMENTS FREE OF CONSTRUCTION DEBRIS. IF EQUIPMENT IS ROUTED ACROSS PAVEMENT, [illegible] AS THE [illegible] AIRCRAFT SAFETY AND [illegible] CONSTRUCTION AREAS AND VEHICLES AS REQUIRED IN LATEST EDITION OF AC 150/5370-2.

I. WORK AREA BOUNDARY IN ALL UNPAVED AREAS SHALL BE MARKED WITH LATHS OR [illegible].

J. ORANGE SAFETY FENCE, LATHS SHALL BE PLACED AT [illegible] ADJACENT TO BUILDING, FENCE, OR AIRPORT STRUCTURE. AREA SHALL BE CLEAR OF STOCKPILED MATERIAL OR [illegible].

K. CONTRACTOR SHALL TAKE PRECAUTIONS NECESSARY TO PROTECT STRUCTURES AND TREES ADJACENT TO WORK AREA. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED TO THE [illegible] AT THE CONTRACTOR'S EXPENSE.

L. [illegible] ACTIVE RUNWAYS SHALL BE [illegible] WITH THE OWNER, ENGINEER, AND [illegible]. CONTRACTOR IS TO USE CAUTION DURING CONSTRUCTION TO PROTECT EXISTING [illegible] TAXIWAY SIGNS, LIGHTS, NAVIGATIONAL AIDS, AND [illegible] FROM DAMAGE.

N. [illegible] SHALL MINIMIZE AS MUCH AS POSSIBLE DAMAGE TO THE CONTRACTOR'S ACCESS ROUTE. ANY DAMAGE TO THE ACCESS ROUTE WILL BE REPAIRED AT THE CONTRACTOR'S COST. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL IDENTIFY ANY PRE-EXISTING CONDITIONS WITH THE ENGINEER.

## SUMMARY OF PROJECT TIME AND LIQUIDATED DAMAGES

| PHASE | TIME (CALENDAR DAYS) | LIQUIDATED DAMAGES |
|---|---|---|
| 1 | 90 | $1,000 PER CALENDAR DAY |
| TOTAL PROJECT | 90 | N/A |

N

0 300 600 Feet

PACKET 21.147 November 14, 2023

Parkhill

MICHAEL KRUSING 11182 06/01/23

SEAN ELLIS 14238 06/01/23

# MDD NORTH FENCE REPLACEMENT

Midland International Air & Space Port

CLIENT
MIDLAND AIRPARK CITY OF MIDLAND

PROJECT NO.
3184.2

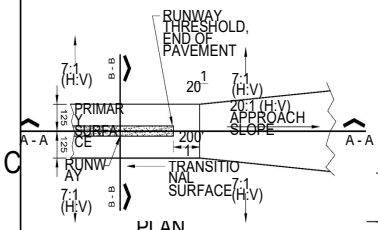
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|---|---|---|
| 1 | 06/01/2023 | BID DOCUMENTS |

# CONSTRUCTION SAFETY & PHASING PLAN

G-005

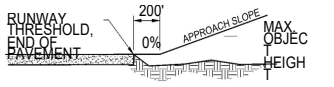
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# APPENDIX B:
# SAFETY DETAILS

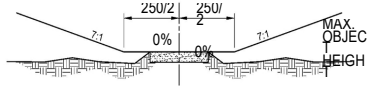



PLAN VIEW

NOTE 1 FOR HORIZONTAL APPROACH SLOPE (H) DISTANCE (A), AND FLARE RATIO (X) SEE TABLE BELOW




SECTION A-A
NO SCALE



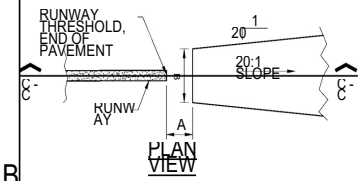

SECTION B-B
NO SCALE

APPROACH SURFACE

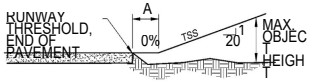
| RUNWAY | SLOPE (H) | A | B | X |
|---|---|---|---|---|
| 7 | 20 | 200 | 500 | 0.10 |
| 25 | 20 | 200 | 500 | 0.10 |
| 16 | 20 | 200 | 500 | 0.10 |

C IMAGINARY SURFACES
NO SCALE

14 CFR PART 77




PLAN VIEW




SECTION C - C

THRESHOLD SITING SURFACED
NO SCALE

(FIGURE 3-2) AC 150/5300-13

THRESHOLD SITING SURFACE

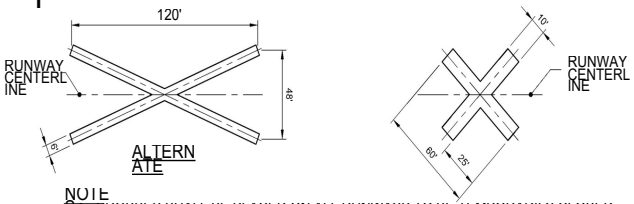
| RUNWAY | SLOPE (H) | A | B | X |
|---|---|---|---|---|
| 7 | 20 | 200 | 500 | 0.10 |
| 25 | 20 | 200 | 500 | 0.10 |
| 16 | 20 | 200 | 500 | 0.10 |

RUNWAY SAFETY AREA

| RUNWAY | WIDTH | LENGTH BEYOND END OF RUNWAY |
|---|---|---|
| 7-25 | 150' | 300' |

RUNWAY OBJECT FREE AREA

| RUNWAY | WIDTH | LENGTH BEYOND END OF RUNWAY |
|---|---|---|
| 7-25 | 500' | 200' |




ALTERNATE

NOTE
1. CROSSES SHALL BE PLACED ON ALL RUNWAYS TO BE TEMPORARILY CLOSED. CROSSES SHALL BE PLACED AT EACH END OF RUNWAY ON TOP OF RUNWAY NUMERALS OR AS DIRECTED BY THE ENGINEER.
2. CROSSES SHALL BE CONSTRUCTED OF FABRIC, PLYWOOD OR SIMILAR MATERIAL AND WEIGHED TO BE SECURE IN THE WIND.
3. CROSSES SHALL BE AVIATION YELLOW COLOR.
4. LIGHTED BARRICADES SHALL BE PLACED ON EACH END OF TEMPORARILY CLOSED TAXIWAYS, RUNWAYS AS DIRECTED BY THE ENGINEER.

A CLOSED RUNWAY CROSSES
NO SCALE

## GENERAL SAFETY/NOTES

1. INSPECT MARKINGS AND BARRICADES DAILY AND MAKE REPAIRS AND ADJUSTMENTS IN A TIMELY MANNER. PROVIDE INSPECTION LOGS TO ENGINEER.
2. EMPLOYEE PARKING SHALL BE WITHIN THE STAGING AREA SHOWN ON
3. [illegible]
4. THE CONSTRUCTION EQUIPMENT SHALL HAVE AN ORANGE CONSTRUCTION FLAG ON THE HIGHEST PART OF THE EQUIPMENT. VEHICLES SHALL BE EQUIPPED WITH FLASHING YELLOW BEACONS. [illegible]
5. [illegible]
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9. CONTINUALLY CLEAR TAXIWAY, APRONS, AND RUNWAYS OF FOREIGN
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Parkhill







MDD NORTH FENCE REPLACEMENT

Midland International Air & Space Port

CLIENT
MIDLAND DAVID PARK
City of Midland

PROJECT NO.
3184.2

| # | DATE | DESCRIPTION |
|---|---|---|
| 1 | 06/01/2023 | BID DOCUMENTS |

CONSTRUCTION SAFETY DETAILS

G-006

PACKET 21.149 November 14, 2023

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# APPENDIX C: ADVISORY CIRCULAR 150/5370-2G, OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION

All contractors and subcontractors responsible for implementation of this CSPP must review all relevant sections of the FAA AC 150/5370-2G, Operating Safety on Airports During Construction

Click here to link to the full Advisory Circular PDF:

https://www.faa.gov/documentLibrary/media/Advisory_Circular/150-5370-2G.pdf

# APPENDIX D: FAA FORM 7460-1, NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION (BLANK)

# NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

§ 77.9 Construction or alteration requiring notice.

If you are proposing construction or alteration that is within the scope of (a), (b), or (c) of this section, or any other FAA aeronautical study, you must notify the FAA of that proposed construction or alteration. You must submit a completed FAA Form 7460–1, Notice of Proposed Construction or Alteration, or you may submit all the required information electronically at https://oeaaa.faa.gov. Your notice must be submitted at least 30 days before the start date of the proposed construction or alteration or the date an application for a construction permit is filed, whichever is earlier. If you propose construction or alteration that is also subject to the licensing requirements of the Federal Communications Commission (FCC), you must submit notice to the FAA on or before the date the application is filed with the FCC. Additional notice is required if the proposed construction or alteration exceeds 200 ft. in height above ground level (AGL), the FAA presumes it to be a hazard to air navigation that results in an inefficient use of airspace. You must include details explaining both why the proposal would not be a hazard to air navigation and why the inefficient use of airspace is necessary for public safety. You may provide notice to the FAA by any available, expeditious means. You must file a supplemental notice on FAA Form 7460–1 within 5 days of the changed final action if you do not file a notice for one of the following construction or alteration proposals that is within the criteria of this section:

(a) Any construction or alteration that exceeds an imaginary surface extending outward and upward at a slope of 100 to 1 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 ft. in actual length, excluding heliports.

(b) Any construction or alteration that exceeds an imaginary surface extending outward and upward at a slope of 50 to 1 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 ft. in actual length, excluding heliports.

(c) Any construction or alteration that exceeds an imaginary surface extending outward and upward at a slope of 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section which is available for public use and is either a hospital heliport or a heliport at which a helicopter flight operator conducts services, public health, or public safety operations.

(d) Any construction or alteration on any of the following airports and heliports:

(1) A public use airport listed in the Airport/Facility Directory, Alaska Supplement, or Pacific Chart Supplement of the U.S. Government Flight Information Publications;

(2) A military airport under construction, or an airport under construction that will be available for public use;

(3) An airport operated by the DOD.

(e) You need to file notice for construction or alteration of:

(1) Any object that will be located on a landing area or the approach or departure area of an FAA-approved instrument flight procedure and would exceed a standard of paragraph (a), (b), or (c) of this section;

(2) Any antenna structure or electrical system that will be higher than 200 ft. AGL at its site.

(3) Any construction or alteration that is more than 200 ft. AGL at its site.

(4) Any construction or alteration on any airport regardless of height or location.

(f) Each person who is required by any other FAA regulation, or by a condition in an FAA authorization, to notify the FAA of proposed construction or alteration must comply with this section.

(g) Each person who is required to file notice under § 77.9, you must submit to the FAA a completed FAA Form 7460–1, Notice of Proposed Construction or Alteration. You

# INSTRUCTIONS FOR COMPLETING FAA FORM 7460-1

PLEASE TYPE or PRINT

ITEM #1. Please include the name, address and phone number of a personal contact point as well as the company name.

ITEM #2. Please include the name, address and phone number of a personal contact point as well as the company name.

ITEM #3. New Construction would be appropriate if the structure has not yet been built. Alteration is a change to an existing structure such as the addition of a side mounted antenna, a change to the marking and lighting, a change to power and/or frequency, or a change to the height. The nature of the alteration shall be included in ITEM #21 "Complete Description of Proposal". Existing would be appropriate if filing on an existing structure which has never been studied by the FAA. The reason for the notice shall be included in ITEM #21 "Complete Description of Proposal". If Temporary, such as a crane or drilling derrick, enters the estimated length of time the temporary structure will be up.

ITEM #5. Enter the date that construction is expected to start and the date that construction should be completed.

ITEM #6. Please indicate the type of structure. DO NOT LEAVE BLANK.

ITEM #7. In the event that obstruction marking and lighting is required, please indicate type desired. If no preference, check "other" and indicate "no preference" DO NOT LEAVE BLANK. NOTE: High Intensity lighting shall be used only for structures over 500' AGL. In the absence of high intensity lighting for structures over 500' AGL, marking is also required.

ITEM #8. If this is an existing tower that has been registered with the FCC, enter the FCC Antenna Structure Registration number here.

ITEM #9 and #10. Latitude and longitude must be geographic coordinates, accurate to within the nearest second known. Latitude and longitude derived solely from a hand-held GPS is only accurate to within 30 meters (328 feet) 95 percent of the time. This data, when plotted, should match the site depiction submitted under ITEM #20.

ITEM #11. NAD 83 is preferred, however, latitude and longitude may be submitted in NAD 27. Also, in some geographic areas where NAD 27 and NAD 83 are not available other datum may be used. It is important to know which datum is used. DO NOT LEAVE BLANK.

ITEM #12. Enter the name of the nearest public use (not private use) airport or heliport, military airfield or heliport to the site. If the structure is or will be in a city, enter the name of that city and state.

ITEM #13. Enter the name of the nearest public use (not private use) airport or heliport, military airfield or heliport to the site. If the structure is or will be in a city, enter the name of that city and state.

ITEM #14. Enter the distance from the airport or heliport listed in #13 to the structure.

ITEM #15. Enter the direction from the airport or heliport listed in #13 to the structure.

ITEM #16. Enter the site elevation above mean sea level and expressed in whole feet rounded to the nearest foot (e.g. 17'3" rounds to 17'. 17'6" rounds to 18'). This data should match the ground contour elevations for site depiction submitted under ITEM #20.

ITEM #17. Enter the total structure height above ground level in whole feet rounded to the next highest foot (e.g. 17'3" rounds to 18'). The total structure height is the highest point of the structure, such as antennas, obstruction lights, lightning rods, etc.

ITEM #18. Enter the overall height above mean sea level and expressed in whole feet. This will be the sum of ITEM #16 + ITEM #17.

ITEM #19. If an FAA aeronautical study was previously conducted, enter the previous study number.

ITEM #20. Enter the relationship of the structure to roads, airports, prominent terrain, existing structures, etc. Attach an 8-1/2" x 11" non-reduced copy of the appropriate 7.5 minute U.S. Geological Survey (USGS) Quadrangle Map MARKED WITH A PRECISE INDICATION OF THE SITE LOCATION. To obtain maps, contact USGS at 1-888-275-8747 or via Internet at "http://store.usgs.gov". If available, submit a copy of the actual survey with the surveyor's certification stating the amount of vertical and horizontal accuracy in feet.

- For antennas, include the type of antenna and center of radiation (AMSL) and all frequencies.
- Attach the antenna's radiation envelopes, include size and configuration of wires and their supporting structures (attach detail sheet).
- For each pole/support, include coordinates, site elevation, and structure height above ground level or water.
- For existing structures, thoroughly explain the reason for notifying the FAA (e.g. construction materials or previous study, etc.).
- Filing this notice does not relieve the sponsor of this construction or alteration from complying with any other federal, state or local rules or regulations. If you are not sure what other rules or regulations apply to your proposal, contact local/state aviation's and zoning authorities.

**Paperwork Reduction Act Statement:** A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection displays a currently valid OMB Control Number. The OMB control number for this information collection is 2120-0001. Public reporting for this collection of information is estimated to be approximately 19 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information. All responses to this collection of information are mandatory for anyone proposing construction or alteration that meets the criteria contained in 14 CFR 77. This information is collected to evaluate the effect of proposed construction or alteration on air navigation and is not confidential. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

**Privacy Act Statement (5 U.S.C. § 552a, as amended): AUTHORITY:** The FAA is responsible for issuing a determination based on extensive analysis completed in accordance with 49 United States Code (USC) Sections 44718, Title 14 of the Code of Federal Regulations (14 CFR), part 77 authorizes FAA to collect this information. **PURPOSE(S):** FAA will use the information provided to administer the Aeronautical Study Process. **ROUTINE USE(S):** In accordance with DOT's system of records notice DOT/ALL 16 Mailing Management System and DOT/FAA 826 Petitions for Exemption, Other than Medical Exemption-Public Dockets, the information may be disclosed to persons outside the Federal government and the public in general.

Please type or print on Form

*Form Approved OMB Expiration Date:* 04/30/2025

***Failure To Provide All Requested Information May Delay Processing of Your Notice***

U.S. Department of Transportation Federal Aviation Administration

# Notice of Proposed Construction or Alteration

**FOR FAA USE ONLY**

*Aeronautical Study Number*

**1. Sponsor** *(person, company, etc. proposing this action)*:
Attn. of
Name:
Address:
City: State: Zip:
Telephone: Fax:

**2. Sponsor's Representative** *(if other than #1)*:
Attn. of
Name:
Address:
City: State: Zip:
Telephone: Fax:

**3. Notice of:** ☐ New Construction ☐ Alteration ☐ Existing ☐ Permanent ☐ Temporary ( months, days)

**4. Work Schedule:** Beginning End

**5. Duration:**

**6. Type:** ☐ Antenna ☐ Crane ☐ Building ☐ Power Line ☐ Landfill ☐ Tower ☐ Other ☐ Water Tank

**7. Marking/Painting and/or Lighting Preferred:** ☐ Red Lights and Paint ☐ Dual - Red and Medium Intensity White-Medium Intensity ☐ Dual - Red and high Intensity White-High Intensity ☐ Other

**8. FCC Antenna Structure Registration Number** *(if applicable)*:

**9. Latitude:** ° ' "

**10. Longitude:** ° ' "

**11. Datum:** ☐ NAD 83 ☐ NAD 27 ☐ Other

**12. Nearest:** State
City:

**13. Nearest *Public-use*** *(not private-use)* or Military Airport or Heliport:

**14. Distance from #13.** to Structure:

**15. Direction from #13.** to Structure:

**16. Site Elevation** *(nearest foot) (AMSL)*: ft.

**17. Total Structure Height (#16 + #17) *(AMSL)*:** ft.

**18. Overall Height above Ground Level (AGL):** ft.

**19. Previous FAA Aeronautical Study Number** *(if applicable)*: -OE

**20. Description of Location:** *(Attach a USGS 7.5 minute Quadrangle Map with the precise site marked and any certified survey)*

**21. Complete Description of Proposal:**

| Frequency/Power (kW) | |
|---|---|
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Notice is required by 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., Section 44718. Persons who knowingly and willingly violate the notice requirements of part 77 are subject to a civil penalty of $1,000 per day until the notice is received, up to a maximum of $10,000 per violation.

**I hereby certify that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to mark and/or light the structure in accordance with established marking & lighting standards as necessary.**

| Date | Typed or Printed Name and Title of Person Filing Notice | Signature |
|---|---|---|
| | | |

FAA Form 7460-1 (04/20) Supersedes Previous Edition

NSN: 0052-00-012-0009

# APPENDIX E: FAA CSPP REVIEW CHECKLIST

**Checklist for FAA CSPP Review**

Airport Name: _____ LOCID: MDD

Associate City: Midland, Texas

Project No. 6184.22

Project Name: MDD North Fence Replacement Project

## F.1.1. AC 150/5370-2G

This checklist identifies the main elements and sub-elements established under Chapter 2 of Advisory Circular 150/5370-2G. Project Managers (PM) are encouraged to use this checklist as an aid when reviewing a Sponsor's CSPP for conformance to the safety standards. Because the PM's

| CSPP Element | Element Addressed? Yes | No | N/A | | Remarks |
|---|---|---|---|---|---|
| **Coordination (Section 2.5)** | | | | | |
| – Contractor Progress Meetings | ✔ | | | | |
| – Addresses necessary actions when changes are proposed for CSPP | ✔ | | | | |
| – Provisions for FAA ATO Coordination | ✔ | | | | |
| **Phasing (Section 2.6)** | | | | | |
| – Phase Elements | ✔ | | | | |
| – Construction Safety Drawings | ✔ | | | | |
| **Area and Operations Affected by Construction Activity (Section 2.7)** | | | | | |
| – Identification of affected Areas | ✔ | | | | |
| – Mitigation Affects | ✔ | | | | |
| **Navigation Aid Protection (Section 2.8)** | | | | | |
| – Operational NAVAID Critical areas | ✔ | | | | |
| **Contractor Access (Section 2.9)** | ✔ | | | | |
| – Location of Stockpiles | | | | | |
| – Construction Material Storage | ✔ | | | | |
| – Vehicle and Pedestrian Operations | ✔ | | | | |
| – Haul Routes | ✔ | | | | |
| **Wildlife Management (Section 2.10)** | ✔ | | | | |
| – Gates | ✔ | | | | |
| – Disruption of Wildlife Habitat | ✔ | | | | |
| **Foreign Object Debris (Section 2.11)** | ✔ | | | | |
| **Hazardous Material Management (Section 2.12)** | | | | | |
| – Hazardous Material Controls | ✔ | | | | |

| CSPP Element | Element Addressed? | | | Remarks |
|---|---|---|---|---|
| | Yes | N/A | No | |
| **Notification of Construction Activities (Section 2.13)** | | | | |
| – List of ResponsibleRepresentatives | ✔ | | | |
| – NOTAMs | ✔ | | | |
| – Emergency NotificationProcedures | | | ✔ | |
| – Coordination with ARFF | | | | |
| – Notification to the FAA (Part 77,NAVAIDs….) | ✔ | | | |
| **Inspection Requirements (Section 2.14)** | | | | |
| – Daily Inspections | ✔ | | | |
| – Final Inspection | ✔ | | | |
| **Underground Utilities (Section 2.15)** | | | | |
| – Procedures for protecting underground utilities | ✔ | | | |
| **Penalties (Section 2.16)** | | | | |
| – Penalty provisions for noncompliance with CSPP | ✔ | | | |
| **Special Conditions (Section 2.17)** | | | | |
| – Conditions that may affect airport operations | ✔ | | | |
| **Runway and Taxiway Visual Aids (Section 2.18)** | | | | |
| – General – Convey Clear Meaning; Secured from movement; Frangible Mounting | ✔ | | | |
| – Lighting and Visual NAVAIDs | ✔ | | | |
| – Signage | ✔ | | | |
| **Access Routes - Marking and Signage (Section 2.19)** | | | | |
| – Haul Road Demarcation | ✔ | | | |
| **Hazard Marking, Lighting and Signage (Section 2.20)** | | | | |
| – Areas Impacted by ConstructionOperations | ✔ | | | |
| – Temporary Runway Closure | ✔ | | | |
| **Work Zone Lighting for Nighttime Construction (Section 2.21)** | | | | |
| – Proper Illumination of Construction Area/Equipment | ✔ | | | |
| **Protection Runway and Taxiway Areas, Zones and Surfaces (Section 2.22)** | | | | |
| – Runway Safety Area (RSA) | ✔ | | | |
| – Runway Object Free Area (ROFA) | ✔ | | | |
| – Taxiway Safety Area (TSA) | ✔ | | | |
| – Taxiway Object Free Area (TOFA) | ✔ | | | |
| – Obstacle Free Zone (OFZ) | ✔ | | | |
| – Approach and DepartureSurfaces | ✔ | | | |
| **Other Limitations on Construction (Section 2.23)** | | | | |
| – Prohibitions | ✔ | | | |

# City Council Meeting

**Item Number:** 22

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Justine Ruff, Director

**Subject:** MOTION APPROPRIATING THE SUM OF $400,000.00 FROM THE AIRPORT UNAPPROPRIATED FUND BALANCE TO THE MULTI-FACILITY REHAB PROJECT (900308); AND TRANSFERRING THE SUM OF $400,000.00 FROM THE MULTI-FACILITY REHAB PROJECT (900308) TO THE AIRPORT OPERATING GRANT FUND PROJECT (DISTRICT 4) (AIRPORTS)

---

**Purpose:**

Consider a Motion authorizing the appropriation of additional funding to the Multi-Facility Rehab Project (900308) at Midland International Air & Space Port.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

City/Airport Share 100% - $400,000.00

**Appropriation Language:**

$400,000.00 will be appropriated from Airport Unappropriated Fund Balance and transferred and appropriated to the Multi-Facility Rehab Project. In addition, $400,000.00 will be transferred from the Multi-Facility Rehab Project to the Airport Operating Grant Fund Project (CARES Grant).

**Discussion:**

In April 2020, the Midland International Air & Space Port received a Coronavirus Aid Relief and Economic Security (CARES) Act Grant for $22,935,854. In August 2021, the FAA issued a

CARES Act Grant Addendum for the Airport Multi-Facility Project at Midland International Air & Space Port allowing the Grant to cover 100% of the Airport Multi-Facility Project; the amount granted for the Multi-Facility Project was $6,711,014.
Recently, the FAA reduced the grant amount by $400,000 due to the FAA determining that a CARES Development Grant could not be used to cover the Contractor's contingency. The $400,000 was moved back to our regular CARES Grant and will be used to cover operating expenses at the Airport. It is now necessary to replace the $400,000 in the Project to cover continued costs.

Morris William Jr.

City Manager's Office

# City Council Meeting

**Item Number:** 23

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Marcia Bentley-German, City Governance Officer/City Secretary

**Subject:** RESOLUTION ESTABLISHING THE DATES OF THE REGULAR CITY COUNCIL MEETINGS TO BE HELD DURING THE CALENDAR YEAR 2024 (DISTRICT: ALL) (CITY SECRETARY'S OFFICE)

---

**Purpose:**

The attached resolution will set the 2024 City Council Meeting Dates.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

None

**Discussion:**

None

Morris William Jr.

City Manager's Office

**RESOLUTION NO. _____**

**RESOLUTION ESTABLISHING THE DATES OF THE REGULAR CITY COUNCIL MEETINGS TO BE HELD DURING THE CALENDAR YEAR 2024**

**WHEREAS**, the City Council finds it to be in the public interest to establish the dates on which the City Council will meet in regular session during the calendar year 2024;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**THAT** the dates of the regular City Council meetings to be held during the 2024 calendar year as shown on Exhibit A, which is attached hereto and made a part hereof for all purposes, are hereby adopted. The City Council expressly reserves the right to approve and adopt one or more regular City Council meeting dates for said calendar year.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marica Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO FORM ONLY:

_____
John Ohnemiller, City Attorney

# 2024 City Council Meeting Dates

January 9

January 23

February 13

February 27

March 19

April 9

April 23

May 14

May 28

June 11

June 25

July 9

July 23

August 13

August 14 - **Budget Wkshop/Set Tax Rate Ceiling**

August 27

September 10 - **First Tax Rate & Budget Hearing**

September 17 - **Second Tax Rate Hearing & Passing of tax rate & Budget**

September 24

October 8

October 22

November 12

December 17

# City Council Meeting

**Item Number:** 24

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Ron Jenkins, Oil and Gas Coordinator

**Subject:** **Motion authorizing the City Manager to execute a First Amendment to Surface Use Agreement with Midland-Petro D.C. Partners, LLC, regarding drilling and production operations located on an approximate 16.87-acre tract of land out of Section 14, Block 39, T-1-S, T&P RR Co. Survey, City and County of Midland, Texas (generally located adjacent to Midland Airpark) (DEVELOPMENT SERVICES)**

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**Purpose:**

Consider a motion to execute a First Amendment to Surface Use Agreement, as listed prior.

**Recommended City Council Action:**

Directional / Informational

**Fiscal Impact:**

There is no cost to the City to process this application.

**Discussion:**

Midland Petro D.C. Partners is requesting an amendment to the existing Surface Use Agreement to allow additional equipment and facilities to the pad sites. The request is due to requirements for metering MIPA (Mineral Interest Pooling Act) wells per the Texas Railroad Commission. In addition, the operator is including the request to use gas lift which will reduce the long-term traffic and reduce the need for workover rigs. The gas lift request will be using electric compressors in an enclosed building. The allowed changes of compressors will still require a council approved variance at the time of permitting.
Attachments: First Amendment to SUA.

Morris Williams Jr.

City Manager's Office

**EXECUTION VERSION**

# FIRST AMENDMENT TO SURFACE USE AGREEMENT

This **FIRST AMENDMENT TO SURFACE USE AGREEMENT** (this "***Amendment***") is hereby made and entered into effective as of November 14, 2023 (the "***Effective Date***"), by and between the **CITY OF MIDLAND, TEXAS**, a home-rule municipal corporation, with an address of 300 N. Loraine, Midland, Texas 79701, Attention: Right-of-Way Manager ("***Surface Owner***"), and **MIDLAND-PETRO D.C. PARTNERS, LLC**, a Texas limited liability company, with an address of P.O. Box 2071, Midland, Texas 79702 ("***Lessee***"). Surface Owner and Lessee are sometimes referred to herein individually as a "***Party***" and collectively as, the "***Parties***".

## RECITALS

WHEREAS, Surface Owner and Lessee are Parties to that certain Surface Use Agreement dated April 21, 2022, recorded by Memorandum of Surface Use Agreement as Instrument No. 12978 in the Official Public Records of Midland County, Texas (the "***Surface Use Agreement***"), which covers the surface estate of those certain lands located in Midland County, Texas more particularly described on Exhibit "A" attached to said Surface Use Agreement (collectively, the "***Surface Premises***");

WHEREAS, the Parties desire to amend the Surface Use Agreement pursuant to the terms and conditions of this Amendment;

NOW, THEREFORE, for good and valuable consideration, the sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

## AMENDMENT

1. Defined Terms. Capitalized terms used but not defined herein shall have the meanings ascribed to them in the Surface Use Agreement.

2. Amendment to Section 4 of the Surface Use Agreement. Subsections (d) and (e) of Section 4 of the Surface Use Agreement are hereby amended and restated in their entirety and as amended and restated shall read as follows:

> "(d) Unless otherwise agreed to in writing by Surface Owner, other than wellheads, pumping units, electrical equipment, production separators, meters and electric pumps, no other structures or facilities, including, without limitation, tank batteries, heater treaters, dehydrators, compressors, or gas treatment facilities, shall be located on the Surface Premises except for those specifically set forth on Exhibit "A-4" attached hereto.
>
> (e) All producing well locations and pits will be fenced in accordance with standards set forth in the Midland City Code or otherwise approved by the Surface Owner and Lessee. Permanent internal combustion engines on pumping units (artificial lift equipment) are expressly prohibited from use on the Surface Premises except for those specifically set forth on Exhibit "A-4" attached hereto. Except as specifically set forth on Exhibit "A-4" attached hereto, Lessee shall install an electric motor to operate any pumping unit placed by Lessee on the Surface Premises to produce any well."

3. Addition of Exhibit "A-4" to Surface Use Agreement. The Exhibit "A-4" attached to this Amendment is hereby added to and incorporated into the Surface Use Agreement for all purposes.

4. Global Amendment. The Surface Use Agreement and all exhibits and schedules thereto are hereby modified wherever necessary, and even though not specifically addressed herein, so as to conform to the amendments to the Surface Use Agreement as set forth in this Amendment.

5. Ratification of the Surface Use Agreement. The Parties hereby ratify the Surface Use Agreement (as amended hereby) and agree that all of the provisions of the Surface Use Agreement (as amended hereby) remain in full force and effect.

6. Entire Agreement. This Amendment constitutes the sole and entire agreement of the Parties with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings, agreements, representations and warranties, both written and oral, with respect to such subject matter. No modification or waiver of any provision of this Amendment or consent to departure therefrom shall be effective unless in writing and approved by the Parties.

7. **Governing Law. ALL ISSUES AND QUESTIONS CONCERNING THE APPLICATION, CONSTRUCTION, VALIDITY, INTERPRETATION AND ENFORCEMENT OF THIS AMENDMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS, WITHOUT GIVING EFFECT TO ANY CHOICE OF LAW OR CONFLICT OF LAW PROVISION OR RULE (WHETHER OF THE STATE OF TEXAS OR ANY OTHER JURISDICTION) THAT WOULD CAUSE THE APPLICATION OF THE LAWS OF ANY JURISDICTION OTHER THAN THE STATE OF TEXAS.**

8. Binding Agreement. The terms and conditions of this Amendment shall inure to the benefit of and be binding upon the respective successors and permitted assigns of Surface Owner and Lessee. Nothing in this Amendment, express or implied, is intended to confer upon any third party any rights, remedies, obligations, or liabilities under or by reason of this Amendment, except as expressly provided in this Amendment or in the Surface Use Agreement.

9. Counterparts. This Amendment may be executed in counterparts, each of which shall be deemed an original instrument, but all such counterparts together shall constitute but one agreement. A telecopy or electronic delivery [i.e., the transmission by any Party of its signature on an original or any copy of this instrument via fax machine or over the internet in electronic photostatic form (e.g., pdf Adobe)] shall be deemed to be the delivery by such Party of its original signature hereon.

***[Remainder of Page Left Intentionally Blank; Signature Page Follows.]***

IN WITNESS WHEREOF, this Amendment has been executed by each of the Parties, effective as of the Effective Date.

**SURFACE OWNER:**

**CITY OF MIDLAND, TEXAS**

By:_____
Tommy Gonzalez, City Manager

STATE OF TEXAS §
§
COUNTY OF MIDLAND §

This instrument was acknowledged before me this _____ day of _____, 2023, by Tommy Gonzalez, City Manager of the City of Midland, Texas, a municipal corporation, on behalf of said entity.

_____
Notary Public, State of Texas

**LESSEE:**

**MIDLAND-PETRO D.C. PARTNERS, LLC**

By: _____
Name: _____
Title: _____

STATE OF TEXAS §
§
COUNTY OF MIDLAND §

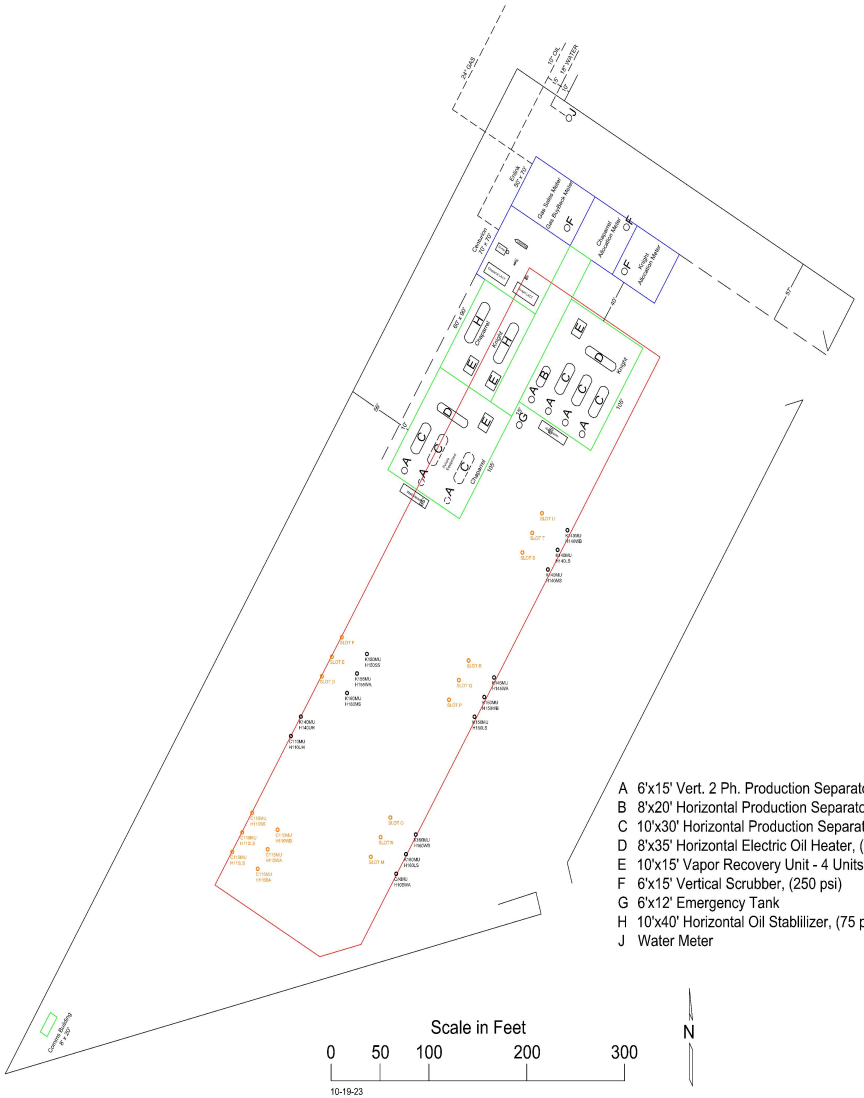
This instrument was acknowledged before me this _____ day of _____, 2023, by _____, _____ of Midland-Petro D.C. Partners, LLC, a Texas limited liability company, on behalf of said company.

_____
Notary Public, State of Texas

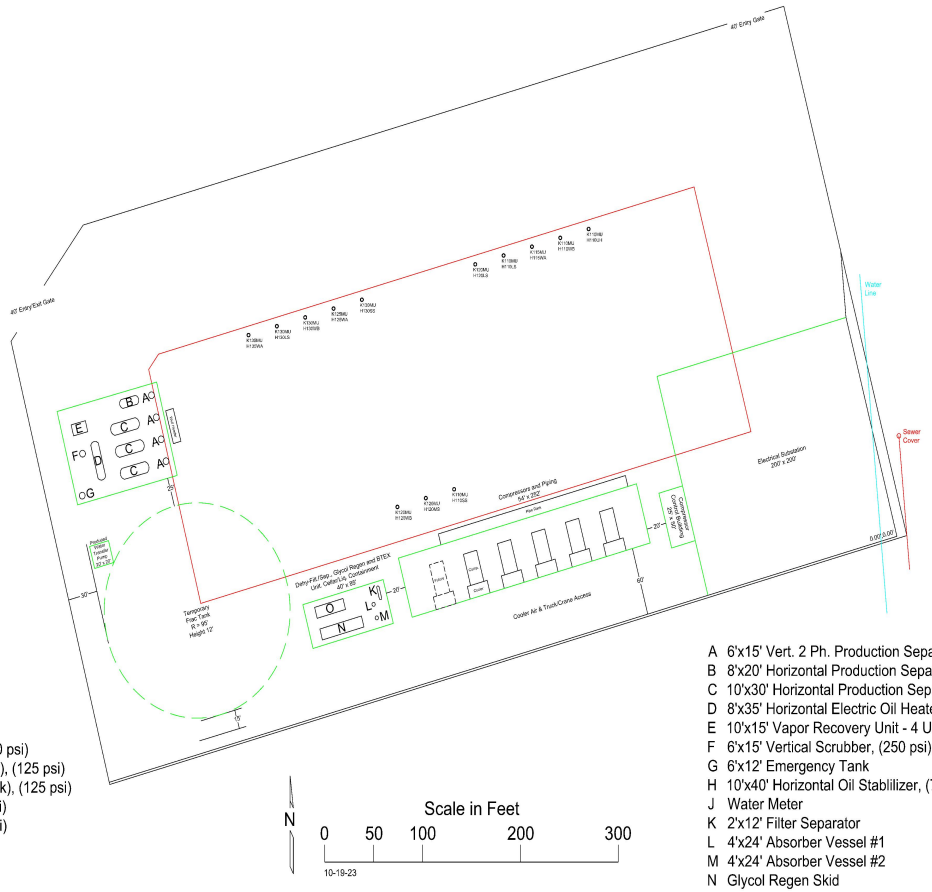
**EXHIBIT "A-4"**

Attached to that certain Surface Use Agreement
between the City of Midland, Texas, as "Surface Owner"
and
Midland-Petro D.C. Partners, LLC, as "Lessee"

(see attached)




A 6'x15' Vert. 2 Ph. Production Separator, (250 psi)
B 8'x20' Horizontal Production Separator (Test), (125 psi)
C 10'x30' Horizontal Production Separator (Bulk), (125 psi)
D 8'x35' Horizontal Electric Oil Heater, (125 psi)
E 10'x15' Vapor Recovery Unit - 4 Units (80 psi)
F 6'x15' Vertical Scrubber, (250 psi)
G 6'x12' Emergency Tank
H 10'x40' Horizontal Oil Stablilizer, (75 psi)
J Water Meter




A 6'x15' Vert. 2 Ph. Production Separator, (250 psi)
B 8'x20' Horizontal Production Separator (Test), (125 psi)
C 10'x30' Horizontal Production Separator (Bulk), (125 psi)
D 8'x35' Horizontal Electric Oil Heater, (125 psi)
E 10'x15' Vapor Recovery Unit - 4 Units (80 psi)
F 6'x15' Vertical Scrubber, (250 psi)
G 6'x12' Emergency Tank
H 10'x40' Horizontal Oil Stablilizer, (75 psi)
J Water Meter
K 2'x12' Filter Separator
L 4'x24' Absorber Vessel #1
M 4'x24' Absorber Vessel #2
N Glycol Regen Skid
O BTEX Unit

# City Council Meeting

**Item Number:** 25

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Ron Jenkins, Oil and Gas Coordinator

**Subject:** **RESOLUTION GRANTING VARIANCES FOR 12 OIL AND GAS WELLS TO BE LOCATED CLOSER THAN 500 FEET OF AN OCCUPIED RESIDENCE OR COMMERCIAL STRUCTURE; APPROVING THE ISSUANCE OF PERMITS TO PERMIAN DEEP ROCK OIL CO., LLC ("OPERATOR") TO DRILL SAID OIL AND GAS WELLS LOCATED IN SECTION 14, BLOCK 39, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS (GENERALLY LOCATED BETWEEN 768 FEET AND 1,022 FEET EAST OF NORTH A STREET EXTENSION AND BETWEEN 1,817 FEET AND 2,067 FEET SOUTH OF WEST LOOP 250 NORTH); AND PROVIDING THAT SAID PERMITS DO NOT REQUIRE A NEW ROAD REPAIR AGREEMENT BUT SHALL BE CONSOLIDATED UNDER AN EXISTING ROAD REPAIR AGREEMENT (DISTRICT 3) (DEVELOPMENT SERVICES)**

---

**Purpose:**

Resolution approving the issuance of permits to Permian Deep Rock Oil Co., LLC ("Operator") for the drilling of the following oil and gas wells: CK MIPA Alloc H105WA; Knight 140 MIPA Unit H140LS; Knight 140 MIPA Unit H140MS; Knight 140 MIPA Unit H140WB; Knight 145 MIPA Unit H145WA; Knight 150 MIPA Unit H150LS; Knight 150 MIPA Unit H150SS; Knight 150 MIPA Unit H150WB; Knight 155 MIPA Unit H155WA; Knight 160 MIPA Unit H160LS; Knight 160 MIPA Unit H160MS; and Knight 160 MIPA Unit H160WB; said wells being generally located between 768 feet and 1,022 feet east of North A Street extension and between 1,817 feet and 2,067 feet south of W Loop 250 N. The required 30-day public comment has passed, and the Council may consider this request. No notices of objection received.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

There is no cost to the City to process this application.

**Discussion:**

The Oil and Gas Advisory Committee has reviewed the well site in detail and recommends approval including an update to an exhibit. Per the City agreement requirements, Permian Deep Rock will be using 24 ft. tall sound walls on all sides of location during drilling and fracing. In addition, a quiet type frac system will be used for all wells and truck traffic will enter from turn out lane from Big Spring Street and follow a row to well locations and then exit leaving on Smith Road and then left on Veterans Parkway. A closed loop system will be used for drilling operations so no reserve pits or drillings will be on the property. A Surface Use Agreement (SUA) was approved in 2021. The applications location has changed concerning production vessels in the transfer facility area of this pad from previously permitted applications. An updated and approved Surface Use Agreement will be required prior to the permitting of these wells by the City Council. Receiving support of the Oil & Gas Advisory Committee, Permian Deep Rock Oil is requesting the following variances:

(1) requests variance to residence or commercial structure within 500 feet.
CK MIPA Alloc H105WA variance of 187 feet.
Knight 140 MIPA Unit H140LS variance of 279 feet.
Knight 140 MIPA Unit H140MS variance of 264 feet.
Knight 140 MIPA Unit H140WB variance of 294 feet.
Knight 145 MIPA Unit H145WA variance of 203 feet.
Knight 150 MIPA Unit H150LS variance of 191 feet.
Knight 150 MIPA Unit H150SS variance of 312 feet.
Knight 150 MIPA Unit H150WB variance of 196 feet.
Knight 155 MIPA Unit H155WA variance of 311 feet.
Knight 160 MIPA Unit H160LS variance of 207 feet.
Knight 160 MIPA Unit H160MS variance of 311 feet.
Knight 160 MIPA Unit H160WB variance of 201 feet.
(2) requests to allow for twenty-four-hour fracing operations.
(3) requests variance for fence of the drill pad instead of individual well
(4) request a variance to the landscaping and irrigation to follow the Surface Agreement.
(5) requests variance to remove drill cuttings from the location per the Surface Agreement with the City of Midland.

Attachments: Applications; Location maps; Exhibit - Drill site maps, Exhibit – Overall Location.



City Manager's Office

**RESOLUTION NO. _____**

**RESOLUTION GRANTING VARIANCES FOR 12 OIL AND GAS WELLS TO BE LOCATED CLOSER THAN 500 FEET OF AN OCCUPIED RESIDENCE OR COMMERCIAL STRUCTURE; APPROVING THE ISSUANCE OF PERMITS TO PERMIAN DEEP ROCK OIL CO., LLC ("OPERATOR") TO DRILL SAID OIL AND GAS WELLS LOCATED IN SECTION 14, BLOCK 39, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS (GENERALLY LOCATED BETWEEN 768 FEET AND 1,022 FEET EAST OF NORTH A STREET EXTENSION AND BETWEEN 1,817 FEET AND 2,067 FEET SOUTH OF WEST LOOP 250 NORTH); AND PROVIDING THAT SAID PERMITS DO NOT REQUIRE A NEW ROAD REPAIR AGREEMENT BUT SHALL BE CONSOLIDATED UNDER AN EXISTING ROAD REPAIR AGREEMENT**

**WHEREAS,** on December 8, 2009, the City Council of the City of Midland duly approved Ordinance No. 8769 which amended Title VI, "Police Regulations,"Chapter 1, "General Offenses," of the City Code of Midland, Texas, so as to establish Section 23, "Oil and Gas Well Permits issued on or after January 1, 2010," which governs the granting or rejecting of Oil and Gas Well Permits; and

**WHEREAS**, the purpose of said section is to establish reasonable and uniform limitations, safeguards, and regulations for present and future operations related to the exploring, drilling, developing, producing, transporting and storing of oil or gas or other substances produced in association with oil and gas within the City of Midland to protect the health, safety, and general welfare of the public and the orderly development of the City of Midland; abate or prevent potential public nuisances; minimize the potential adverse impact to surface and mineral owners, protect the quality of the environment and encourage the orderly production of available mineral resources; and

**WHEREAS**, Section 6-1-23(C) of the City Code of Midland, Texas, makes it an offense to knowingly drill or participate in the drilling of any well or to re-enter any well within the corporate limits of the City of Midland without a permit having first been issued by the authority of the City Council; and

**WHEREAS**, Operator has submitted applications to the City of Midland to drill oil and gas wells on the property described in Section Two hereof; and

**WHEREAS**, pursuant to Section 6-1-23(H)(2)(a) of the City Code of Midland, Texas, Operator has requested variances in order to allow said oil and gas wells to be closer than 500 feet of an occupied residence or commercial structure; and

**WHEREAS**, notice of the public hearing on this matter was provided in accordance with Section 6-1-23(H)(1) and a public hearing was held on October 10, 2023; and

**WHEREAS**, subsequent to said public hearing, and in accordance with Section 6-1-23(H)(1), the City Council allowed the public and Operator thirty (30) days to submit written input to the City Manager regarding Operator's applications to drill oil and gas wells on the property described in Section Two hereof; and

**WHEREAS**, the City Council has considered those issues set forth in Section 6-1-23(I) in determining whether to grant or deny permits to Operator to drill oil and gas wells on the property described in Section Two hereof; and

**WHEREAS**, the City Council finds and determines that granting permits to Operator to drill oil and gas wells on the property described in Section Two hereof will not present a health or safety risk; and

**WHEREAS**, the City Council finds it to be in the public interest to approve the issuance of permits to Operator to drill oil and gas wells on the property described in Section Two hereof;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the above recitals are hereby adopted and approved by the City Council of the City of Midland, and variances are hereby granted for oil and gas wells to be located on the property described in Section Two hereof by allowing said oil and gas wells to be closer than 500 feet of an occupied residence or commercial structure subject to

the conditions of the permits authorized in Section Two.

**SECTION TWO.** That the Mayor is hereby authorized and directed to execute permits, on behalf of the City of Midland, that will allow Operator to drill the following oil and gas wells:

> CK MIPA Alloc H105WA; Knight 140 MIPA Unit H140LS; Knight 140 MIPA Unit H140MS; Knight 140 MIPA Unit H140WB; Knight 145 MIPA Unit H145WA; Knight 150 MIPA Unit H150LS; Knight 150 MIPA Unit H150SS; Knight 150 MIPA Unit H150WB; Knight 155 MIPA Unit H155WA; Knight 160 MIPA Unit H160LS; Knight 160 MIPA Unit H160MS; and Knight 160 MIPA Unit H160WB;

located in Section 14, Block 39, T-1-S, T&P RR Co. Survey, City of Midland, Midland County, Texas. Said permits shall be in forms substantially similar to those attached hereto as Exhibits "A" through "L" and incorporated herein for all legal purposes.

**SECTION THREE.** That said permits do not require a new road repair agreement but shall be consolidated under the existing road repair agreement between Operator and the City of Midland for Operator's wells located on the property described in Section Two hereof.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Jose Ortiz, Assistant City Manager

_____
Ron Jenkins, Oil and Gas Coordinator

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's CK MIPA Alloc H105WA oil and gas well shall be 2,067 feet from the north line and 777 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023 through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 187 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 140 MIPA Unit H140LS oil and gas well shall be 1,832 feet from the north line and 1,008 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

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A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 279 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 140 MIPA Unit H140MS oil and gas well shall be 1,846 feet from the north line and 994 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

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A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 264 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 140 MIPA Unit H140WB oil and gas well shall be 1,817 feet from the north line and 1,022 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

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This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

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A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 294 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

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The location of Operator's Knight 145 MIPA Unit H145WA oil and gas well shall be 1,924 feet from the north line and 917 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

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***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 203 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 150 MIPA Unit H150LS oil and gas well shall be 1,953 feet from the north line and 889 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 191 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 150 MIPA Unit H150SS oil and gas well shall be 1,872 feet from the north line and 796 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 312 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 150 MIPA Unit H150WB oil and gas well shall be 1,939 feet from the north line and 903 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 196 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 155 MIPA Unit H155WA oil and gas well shall be 1,886 feet from the north line and 782 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

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If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 311 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 160 MIPA Unit H160LS oil and gas well shall be 2,053 feet from the north line and 791 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 207 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 160 MIPA Unit H160MS oil and gas well shall be 1,900 feet from the north line and 768 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 311 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 160 MIPA Unit H160WB oil and gas well shall be 2,038 feet from the north line and 805 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 201 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's CK MIPA Alloc H105WA oil and gas well shall be 2,067 feet from the north line and 777 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023 through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

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A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 187 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 140 MIPA Unit H140LS oil and gas well shall be 1,832 feet from the north line and 1,008 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

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***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 279 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 140 MIPA Unit H140MS oil and gas well shall be 1,846 feet from the north line and 994 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 264 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 140 MIPA Unit H140WB oil and gas well shall be 1,817 feet from the north line and 1,022 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 294 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 145 MIPA Unit H145WA oil and gas well shall be 1,924 feet from the north line and 917 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 203 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 150 MIPA Unit H150LS oil and gas well shall be 1,953 feet from the north line and 889 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

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Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 191 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

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GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 150 MIPA Unit H150SS oil and gas well shall be 1,872 feet from the north line and 796 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 312 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 150 MIPA Unit H150WB oil and gas well shall be 1,939 feet from the north line and 903 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

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A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 196 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 155 MIPA Unit H155WA oil and gas well shall be 1,886 feet from the north line and 782 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 311 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 160 MIPA Unit H160LS oil and gas well shall be 2,053 feet from the north line and 791 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

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This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

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If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 207 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

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The location of Operator's Knight 160 MIPA Unit H160MS oil and gas well shall be 1,900 feet from the north line and 768 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

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The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

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This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

***OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY OF MIDLAND, THE CITY'S OFFICERS, AGENTS, AND EMPLOYEES FROM ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY TO OR DEATH OF ANY PERSON, OR FOR DAMAGE TO ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE WORK DONE BY OPERATOR UNDER AN OIL AND GAS WELL PERMIT WHERE SUCH INJURIES, DEATH, OR DAMAGES ARE CAUSED BY OPERATOR'S SOLE NEGLIGENCE OR THE JOINT NEGLIGENCE OF THE OPERATOR AND ANY OTHER PERSON OR ENTITY.***

A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 311 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 14, 2023, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2023, to drill an oil and gas well inside the territorial limits of the City of Midland, Texas. The City Council of the City of Midland, Texas, by appropriate action approved the application and authorized the issuance of this permit.

This documentation hereby constitutes a permit, issued in accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), to drill an oil and gas well as requested in Operator's application that has been filed with the Oil & Gas Compliance Coordinator and is incorporated herein for all legal purposes.

The location of Operator's Knight 160 MIPA Unit H160WB oil and gas well shall be 2,038 feet from the north line and 805 feet from the west line, Section 14, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas. The hole size, casing program, cement program and total depth of that well shall be in strict compliance with the proposed hole size, casing program, cementing program and proposed total depth found in Operator's application. Further, all operations done under this permit shall be done and accomplished in strict accordance with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), which is hereby incorporated into this permit by reference and made applicable hereto with the same force and effect as if the same were copied fully in this permit, including, but not limited to, Subsections (K) through (Z).

This permit shall be effective from November 14, 2023, through November 14, 2024, and so long thereafter as oil or gas is produced, or until such time as Operator has permanently abandoned the operations of the well or facility for which this permit is issued.

The issuance of this permit by the City of Midland does not in any way alter or modify the rights as between the surface estate owner(s) and mineral estate owner(s) if there exists a severance of the surface estate and mineral estate. This permit in no way exempts Operator from its responsibilities or obligations as to third parties. The issuance of this permit only means that Operator has, at this time, complied with Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance No. 8769) and that the Midland City Council, as a regulatory body, will allow Operator to proceed under the conditions of this permit. The issuance of this permit is intended to be only a negative pronouncement that grants no affirmative rights to the permittee to occupy the property. It is expressly provided that this permit does not authorize a trespass by the permittee as to any third party. This

permit does not in any way restrict the use of the surface estate. Securing a permit does not authorize Operator to act with impunity as to third parties, nor does it insulate Operator from the consequences of its actions with regard to those third parties. The receipt of a permit does not undertake to adjudicate property rights.

This permit granted by the City of Midland does not act to immunize Operator from civil tort liability from private parties for actions arising out of the use of the permit. This is because the permit is a "negative pronouncement" that grants no affirmative rights to the permittee. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of State or local law or regulations. Operator has obtained a permit from the City of Midland but the consequences of acting under the permit have not been immunized. The fact that the City of Midland has issued a permit to drill an oil and gas well does not shield Operator from third party tort liability stemming from the consequences of the permitted activity.

***NOTWITHSTANDING ANY OTHER PROVISION, OPERATOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY OF MIDLAND, CITY OF MIDLAND'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH OPERATOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR CITY OF MIDLAND'S NEGLIGENCE.***

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A right-of-way license agreement approved by a resolution of the Midland City Council is required for any oil and/or gas flowline or pipeline or any other device associated with a proposed well site that extends into, on, above, in, under, across or through any City rights-of-way, including but not limited to streets, alleys, and utility and drainage rights-of-way.

If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. The well shall be no closer than 201 feet of an occupied residence or commercial structure.
2. Twenty-four hour hydraulic fracturing operations are permitted.
3. In lieu of constructing a perimeter fence around this permitted well, a perimeter fence around the well pad site may be constructed. Said perimeter fence around the well pad site shall, at a minimum, meet the requirements of Ordinance No. 8769.
4. Landscaping and irrigation shall conform to the surface use agreement.
5. Drill cuttings shall be removed from the surface location.

Sound walls shall be used during drilling and completion operations as noted in the application.

This permit shall constitute a written contract for purposes of insurance requirements.

In addition to the requirements of this permit and the Midland City Code § 6-1-23, "Oil and Gas Well Permits Issued On or After January 1, 2010" (Ordinance 8769), including, but not limited to Subsections (K) through (Z), Operator shall develop, maintain and operate the well described herein in accordance with the conditions, limitations and safeguards contained in Operator's application for said well.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of November 2023.

CITY OF MIDLAND, TEXAS

BY: _____

Lori Merritt Blong, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2023.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 08/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location):**
**Office buildings, City Collection Center, undeveloped pasture**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists**

**the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(2).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** CK MIPA Alloc H105WA

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 2067' FNL & 777' FWL, Section 14
Block 39, T1S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations)*. [See § J(16) and (20)].**

***ATTACHED AS EXHIBIT J* is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: Road use and repair agreement attached**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Co.
**[NAME OF COMPANY]**

**By** _____
**Its** General Manager

State of Texas )

County of Midland )

, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

[S E A L]

Estella Peña
Notary Public, State of Texas

## NOTES:

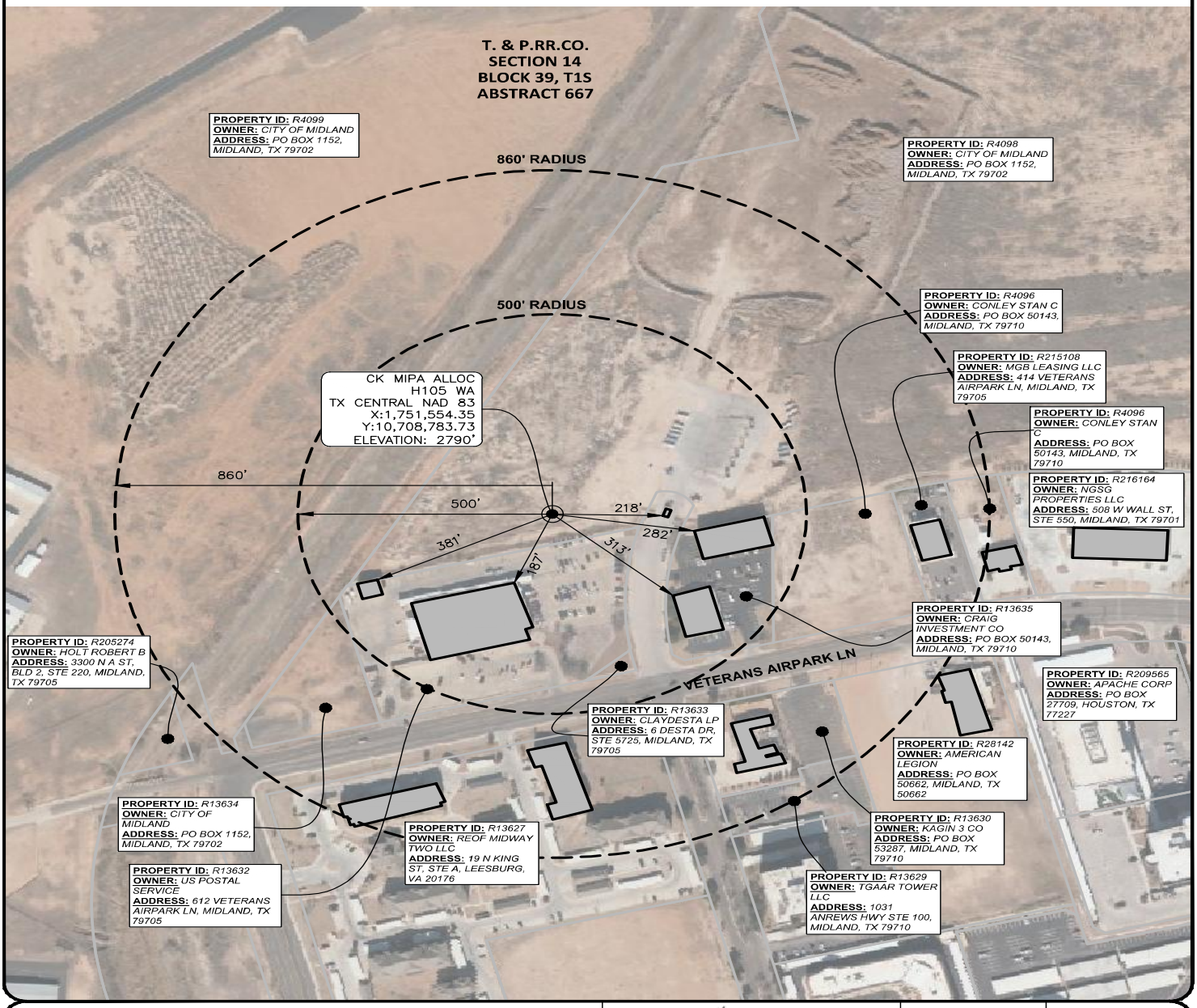
1. ORIGINAL DOCUMENT SIZE: 8.5" X 14"
2. THIS EXHIBIT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS. THIS IS NOT A "BOUNDARY SURVEY".
3. THE PROPOSED WELL LOCATION WAS SURVEYED ON 03-01-2023

## SYMBOL LEGEND:

- FIRE HYDRANT
- STORM DRAIN MANHOLE
- WATER VALVE

N W E S

0' 150' 300'




WARNING: PLAT MAY NOT SHOW ALL CROSSINGS OF PIPELINES OR CABLES. USE TEXAS ONE CALL SYSTEM BEFORE EXCAVATION ON PROPERTY.

# WELL RADIUS

PROPOSED CK MIPA ALLOC H105 WA

T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S, ABSTRACT 667, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

WELL SECTION LINE TIES: 777' FSWL & 2,067' FNWL

NOTES:
1. SURVEY RECONSTRUCTION FILED IN THE OFFICE OF ATWELL, LLC.
2. ALL BEARING AND GRID COORDINATES SHOWN ARE BASED ON THE TEXAS COORDINATE SYSTEM OF NAD 83, CENTRAL ZONE.
3. THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY.

PERMIAN DEEP ROCK OIL COMPANY

ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

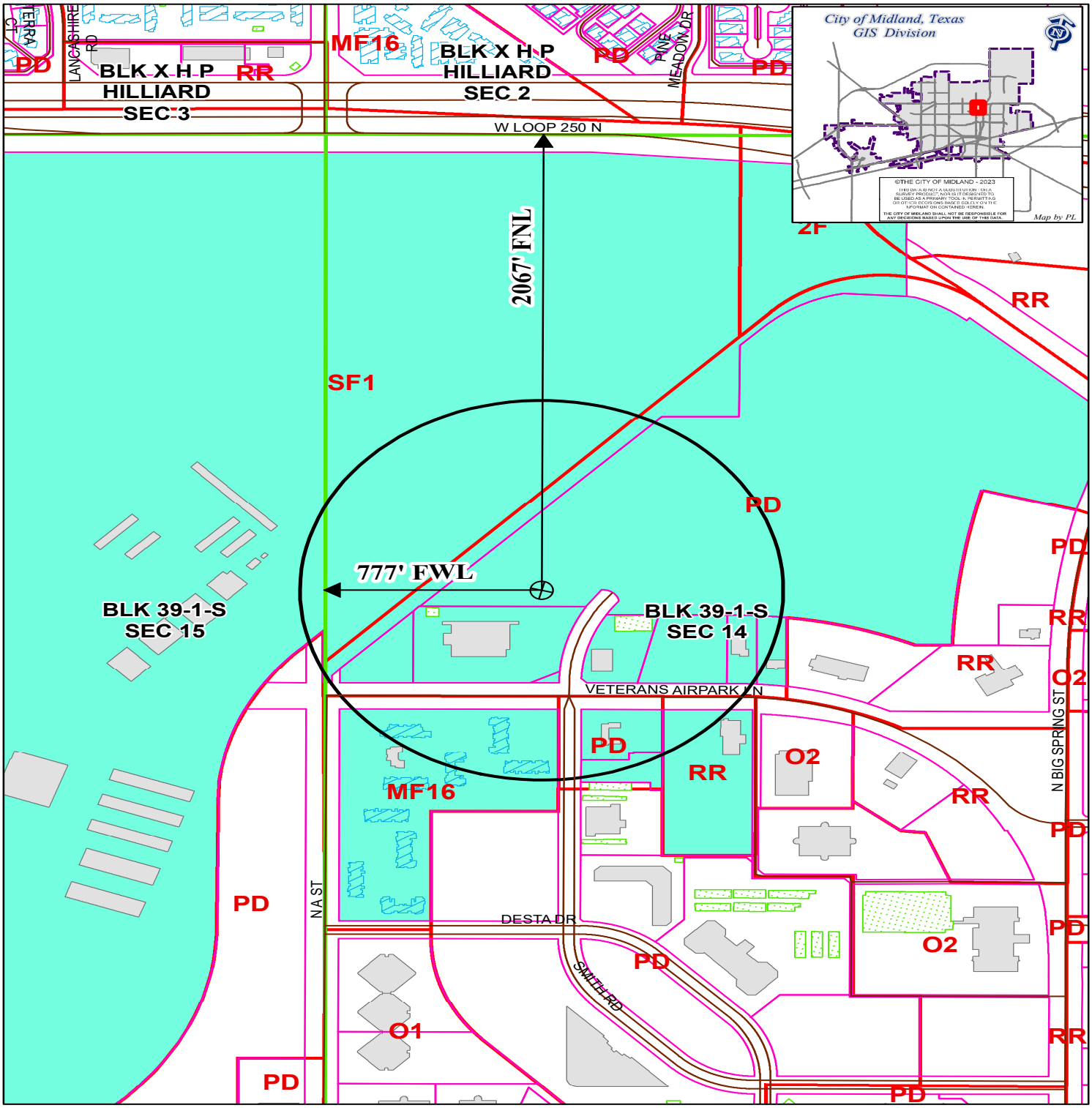
| | | | |
|---|---|---|---|
| DRAWN | RS | DATE | 03-01-23 |
| CHECKED | DC | DATE | 03-01-23 |
| APP'D | | DATE | |
| SCALE | 1"=300' | PAGE | 2 OF 4 |

| REV# | DATE | DESC. |
|---|---|---|
| | | |
| | | |
| | | |

| | |
|---|---|
| JOB NAME | WELL RADIUS |
| JOB NO. | 23001261 |



Date: Mar 02, 2023, 3:38pm User ID: rsolis
File: K:\23001261 – Airpark East & West Pad Revisions\11 MAPPING\00 PLAN SETS\00 PLAT – TENTATIVE PRELIM\01 REV 0\DWG\23001261 – Airpark East & West Pad Revisions – CK MIPA ALLOC H105 WA.dwg




# LOCATION AND ZONING MAP

**Oil - 050796 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 2,067' FNL and 777' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 777 feet east of North A Street extension and 2,067 feet south of W Loop 250 N.

**CK MIPA Alloc Unit H105WA**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, O2 | OFFICE |
| RE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| RR, SF1, SF2, SF3 | ONE-FAMILY DWELLING | CR1, CR2, CLRB | LOCAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 08/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location):**
**Office buildings, City Collection Center, undeveloped pasture**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists**

**the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(2).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Knight 140 MIPA Unit H140LS

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 1832' FNL & 1008' FWL, Section 14
Block 39, T1S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

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***ATTACHED AS EXHIBIT M*: Road use and repair agreement attached**

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**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

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***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Co.
**[NAME OF COMPANY]**

**By** _____
**Its** General Manager

State of Texas )

County of Midland )

, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

[S E A L]

Estella Peña
Notary Public, State of Texas

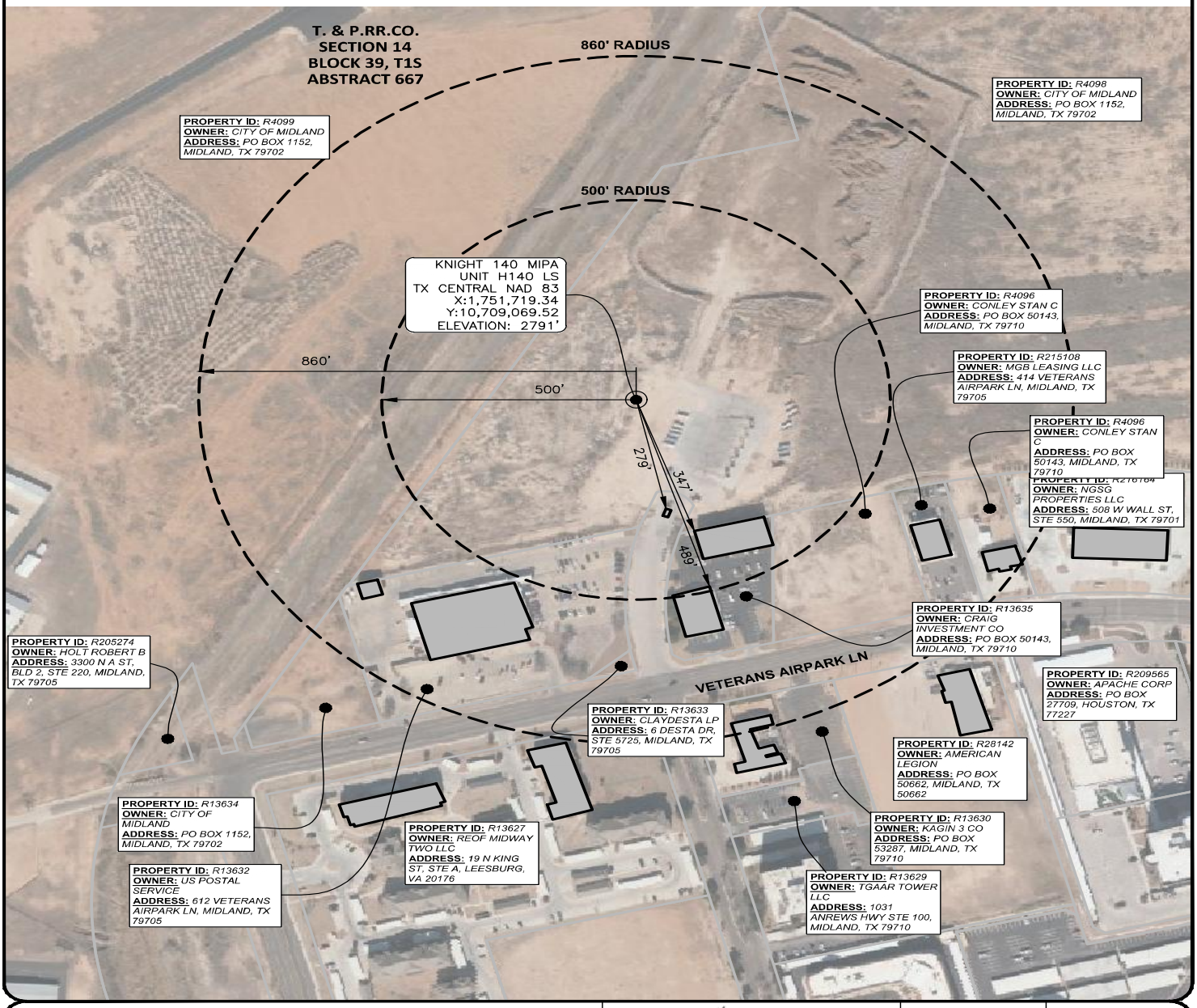
## NOTES:

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2. THIS EXHIBIT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS. THIS IS NOT A "BOUNDARY SURVEY".
3. THE PROPOSED WELL LOCATION WAS SURVEYED ON 03-01-2023

## SYMBOL LEGEND:

- FIRE HYDRANT
- STORM DRAIN MANHOLE
- WATER VALVE

N
W E
S
0' 150' 300'




WARNING: PLAT MAY NOT SHOW ALL CROSSINGS OF PIPELINES OR CABLES. USE TEXAS ONE CALL SYSTEM BEFORE EXCAVATION ON PROPERTY.

# WELL RADIUS

PROPOSED KNIGHT 140 MIPA UNIT H140 LS

T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S, ABSTRACT 667, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

WELL SECTION LINE TIES: 1,008' FSWL & 1,832' FNWL

NOTES:
1. SURVEY RECONSTRUCTION FILED IN THE OFFICE OF ATWELL, LLC.
2. ALL BEARING AND GRID COORDINATES SHOWN ARE BASED ON THE TEXAS COORDINATE SYSTEM OF NAD 83, CENTRAL ZONE.
3. THIS DOES NOT REPRESENT A BOUNDARY SURVEY.

PERMIAN DEEP ROCK OIL COMPANY


ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

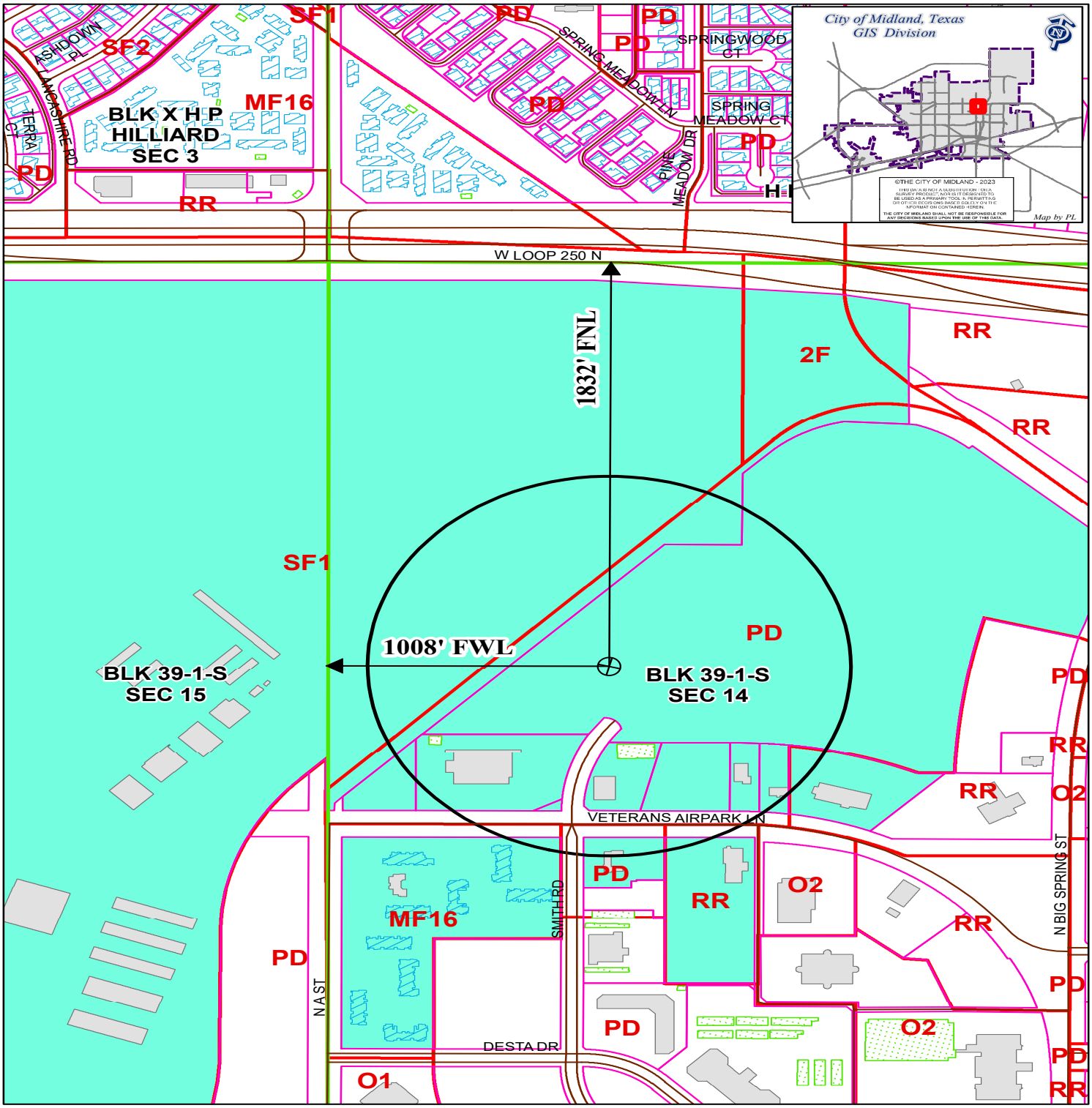

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| DRAWN | RS | DATE | 03-01-23 |
| CHECKED | DC | DATE | 03-01-23 |
| APP'D | | DATE | |
| SCALE | 1"=300' | PAGE | 2 OF 4 |

| REV# | DATE | DESC. |
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| JOB NAME | WELL RADIUS |
| JOB NO. | 23001261 |



Date: Mar 02, 2023, 4:50pm User ID: rsolis
File: K:\23001261 – Airpark East & West Pad Revisions\11 MAPPING\00 PLAN SETS\00 PLAT – TENTATIVE PRELIM\01 REV 0\DWG\23001261 – Airpark East & West Pad Revisions – Knight 140 MIPA Unit H140 LS.dwg




# LOCATION AND ZONING MAP

**Oil - 050797 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,832' FNL and 1,008' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,008 feet east of North A Street extension and 1,832 feet south of W Loop 250 N.

**Knight 140 MIPA Unit H140LS**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | O1, O2 | OFFICE |
| RE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| SF1, SF2, SF3 | ONE-FAMILY DWELLING | CR1, CR2, CLRB | COMMUNITY RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 08/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location):**
**Office buildings, City Collection Center, undeveloped pasture**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists**

**the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(2).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Knight 140 MIPA Unit H140MS

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 1846' FNL & 994' FWL, Section 14
Block 39, T1S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations)*. [See § J(16) and (20)].**

***ATTACHED AS EXHIBIT J* is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: Road use and repair agreement attached**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Co.
**[NAME OF COMPANY]**

**By** _____
**Its** General Manager

State of Texas )

County of Midland )

, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

[S E A L]

Estella Peña
Notary Public, State of Texas

## NOTES:

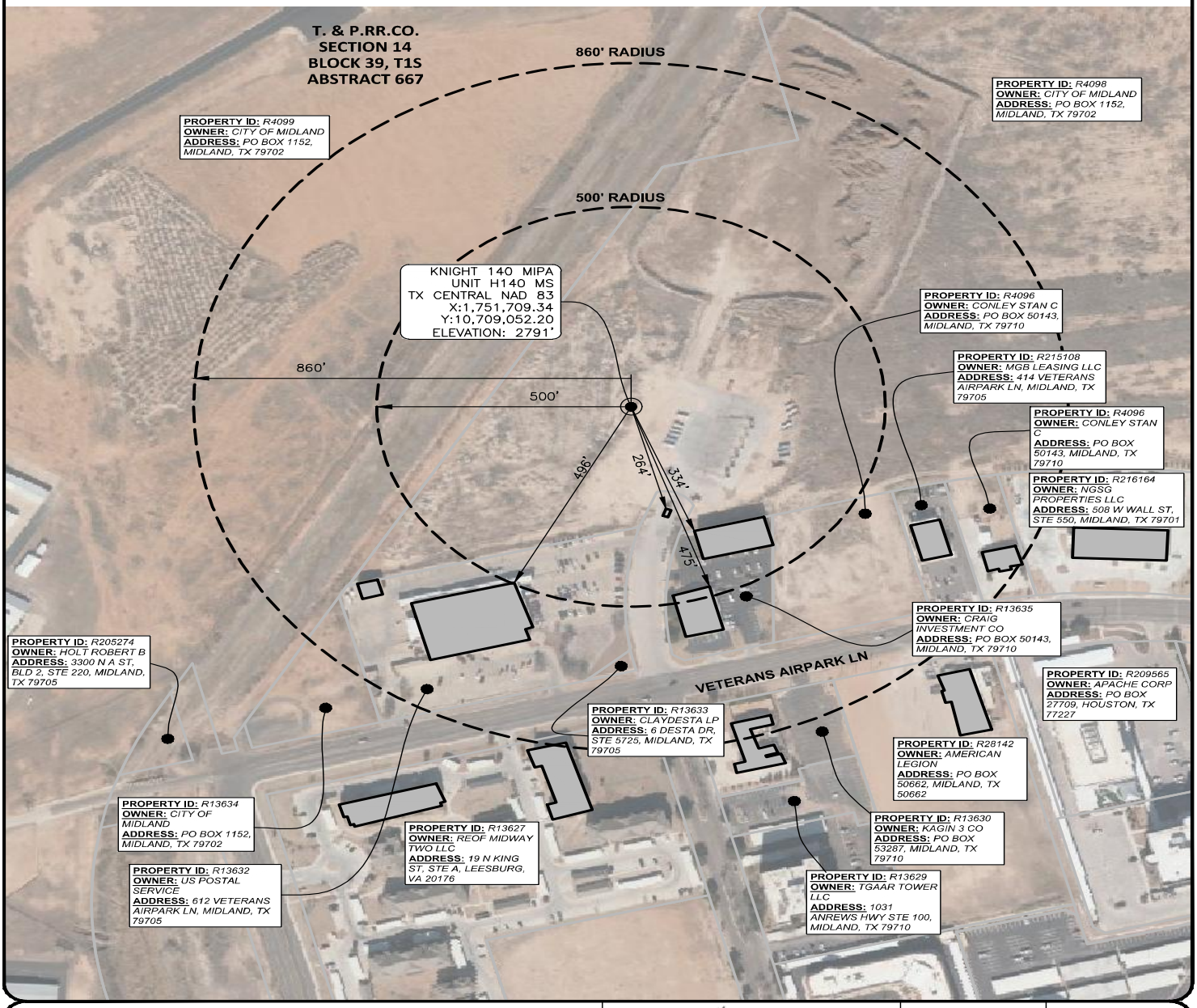
1. ORIGINAL DOCUMENT SIZE: 8.5" X 14"
2. THIS EXHIBIT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS. THIS IS NOT A "BOUNDARY SURVEY".
3. THE PROPOSED WELL LOCATION WAS SURVEYED ON 03-01-2023

## SYMBOL LEGEND:

- FIRE HYDRANT
- STORM DRAIN MANHOLE
- WATER VALVE

N W E S

0' 150' 300'




WARNING: PLAT MAY NOT SHOW ALL CROSSINGS OF PIPELINES OR CABLES. USE TEXAS ONE CALL SYSTEM BEFORE EXCAVATION ON PROPERTY.

# WELL RADIUS

PROPOSED KNIGHT 140 MIPA UNIT H140 MS

T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S, ABSTRACT 667, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

WELL SECTION LINE TIES: 994' FSWL & 1,846' FNWL

NOTES:
1. SURVEY RECONSTRUCTION FILED IN THE OFFICE OF ATWELL, LLC.
2. ALL BEARING AND GRID COORDINATES SHOWN ARE BASED ON THE TEXAS COORDINATE SYSTEM OF NAD 83, CENTRAL ZONE.
3. THIS DOES NOT REPRESENT A BOUNDARY SURVEY.

PERMIAN DEEP ROCK OIL COMPANY

ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

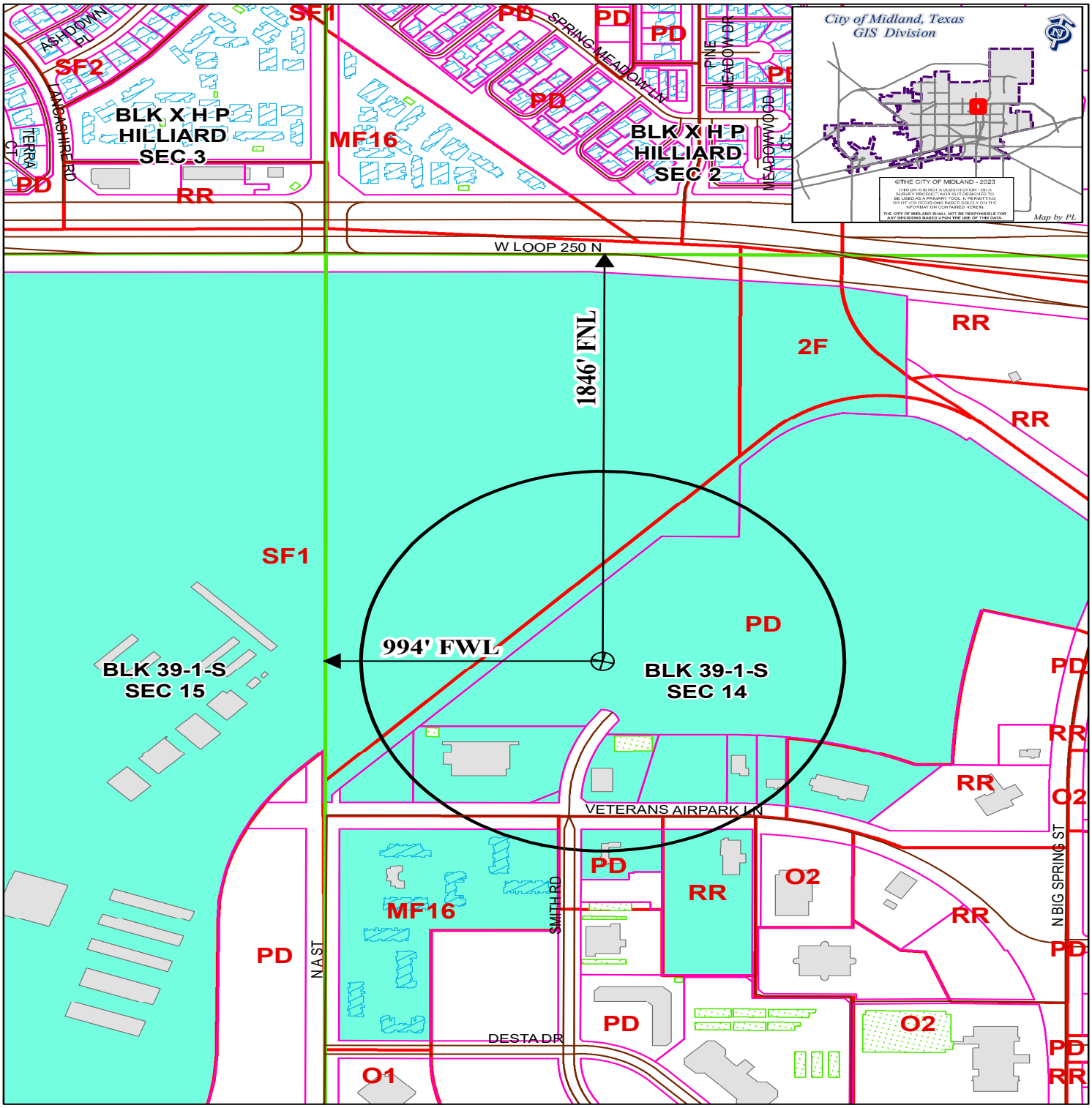
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| DRAWN | RS | DATE | 03-01-23 |
| CHECKED | DC | DATE | 03-01-23 |
| APP'D | | DATE | |
| SCALE | 1"=300' | PAGE | 2 OF 4 |

| REV# | DATE | DESC. |
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| JOB NAME | WELL RADIUS |
| JOB NO. | 23001261 |



Date: Mar 02, 2023, 4:49pm User ID: rsolis
File: K:\23001261 – Airpark East & West Pad Revisions\11 MAPPING\00 PLAN SETS\00 PLAT – TENTATIVE PRELIM\01 REV 0\DWG\23001261 – Airpark East & West Pad Revisions – Knight 140 MIPA Unit H140 MS.dwg




# LOCATION AND ZONING MAP

**Oil - 050798 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,846' FNL and 994' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 994 feet east of North A Street extension and 1,846 feet south of W Loop 250 N.

**Knight 140 MIPA Unit H140MS**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, O2 | OFFICE |
| RE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| SF1, SF2, 1F3 | ONE-FAMILY DWELLING | CR1, CR2, CLRB | COMMERCIAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 08/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location):**
**Office buildings, City Collection Center, undeveloped pasture**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists**

**the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(2).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Knight 140 MIPA Unit H140WB

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 1817' FNL & 1022' FWL, Section 14
Block 39, T1S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations)*. [See § J(16) and (20)].**

***ATTACHED AS EXHIBIT J* is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: Road use and repair agreement attached**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Co.
**[NAME OF COMPANY]**

**By** _____
**Its** General Manager

State of Texas )

County of Midland )

, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

[S E A L]

Estella Peña
Notary Public, State of Texas

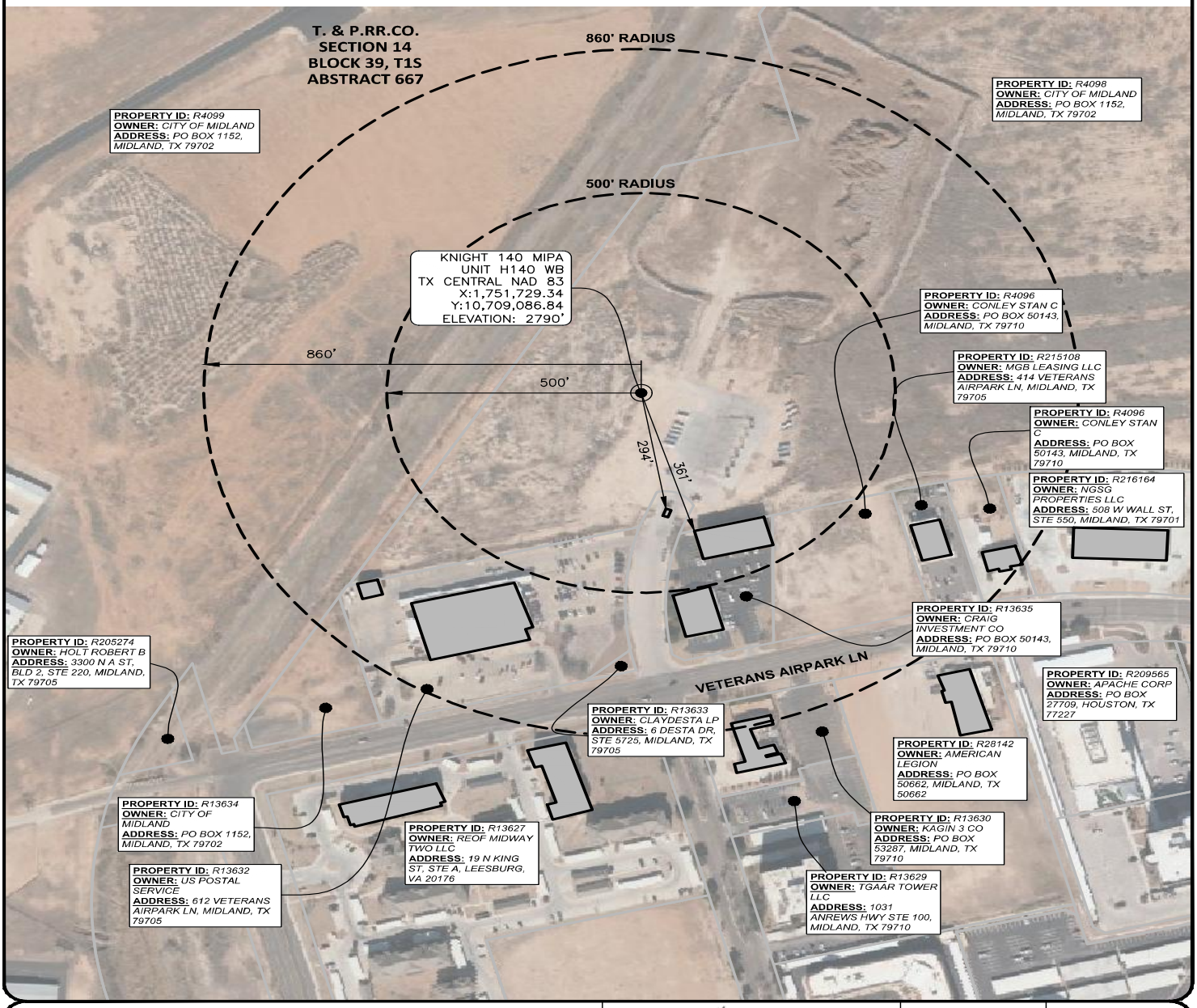
## NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 14"
2. THIS EXHIBIT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS. THIS IS NOT A "BOUNDARY SURVEY".
3. THE PROPOSED WELL LOCATION WAS SURVEYED ON 03-01-2023

## SYMBOL LEGEND:

- FIRE HYDRANT
- STORM DRAIN MANHOLE
- WATER VALVE

N
W E
S
0' 150' 300'




WARNING: PLAT MAY NOT SHOW ALL CROSSINGS OF PIPELINES OR CABLES. USE TEXAS ONE CALL SYSTEM BEFORE EXCAVATION ON PROPERTY.

# WELL RADIUS

PROPOSED KNIGHT 140 MIPA UNIT H140 WB

T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S, ABSTRACT 667, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

WELL SECTION LINE TIES: 1,022' FSWL & 1,817' FNWL

NOTES:
1. SURVEY RECONSTRUCTION FILED IN THE OFFICE OF ATWELL, LLC.
2. ALL BEARING AND GRID COORDINATES SHOWN ARE BASED ON THE TEXAS COORDINATE SYSTEM OF NAD 83, CENTRAL ZONE.
3. THIS DOES NOT REPRESENT A BOUNDARY SURVEY.

PERMIAN DEEP ROCK OIL COMPANY


ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

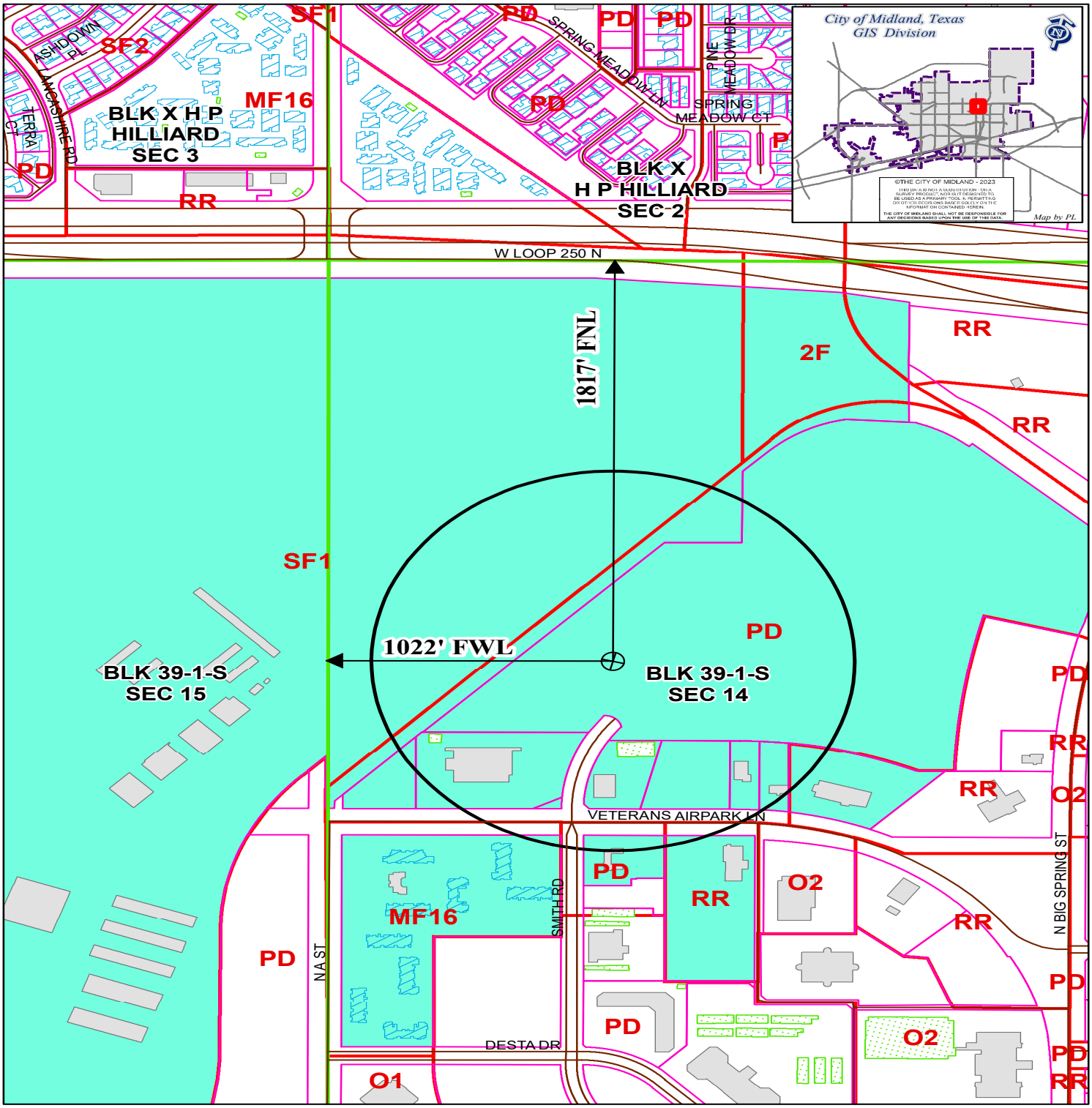

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| DRAWN | RS | DATE | 03-01-23 |
| CHECKED | DC | DATE | 03-01-23 |
| APP'D | | DATE | |
| SCALE | 1"=300' | PAGE | 2 OF 4 |

| REV# | DATE | DESC. |
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|---|---|
| JOB NAME | WELL RADIUS |
| JOB NO. | 23001261 |



Date: Mar 02, 2023, 4:47pm User ID: rsolis
File: K:\23001261 – Airpark East & West Pad Revisions\11 MAPPING\00 PLAN SETS\00 PLAT – TENTATIVE PRELIM\01 REV 0\DWG\23001261 – Airpark East & West Pad Revisions – Knight 140 MIPA Unit H140 WB.dwg




# LOCATION AND ZONING MAP

**Oil - 050799 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,817' FNL and 1,022' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,022 feet east of North A Street extension and 1,817 feet south of W Loop 250 N.

**Knight 140 MIPA Unit H140WB**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, 02 | OFFICE |
| RE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| SF1, SF2, 1F3 | ONE-FAMILY DWELLING | CR1, CR2, CLRB | LOCAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 08/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location):**
**Office buildings, City Collection Center, undeveloped pasture**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(2).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Knight 145 MIPA Unit H145WA

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 1924' FNL & 917' FWL, Section 14
Block 39, T1S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations)*. [See § J(16) and (20)].**

***ATTACHED AS EXHIBIT J* is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: Road use and repair agreement attached**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Co.
**[NAME OF COMPANY]**

**By** _____
**Its** General Manager

State of Texas )

County of Midland )

, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

[S E A L]

Estella Peña
Notary Public, State of Texas

## NOTES:

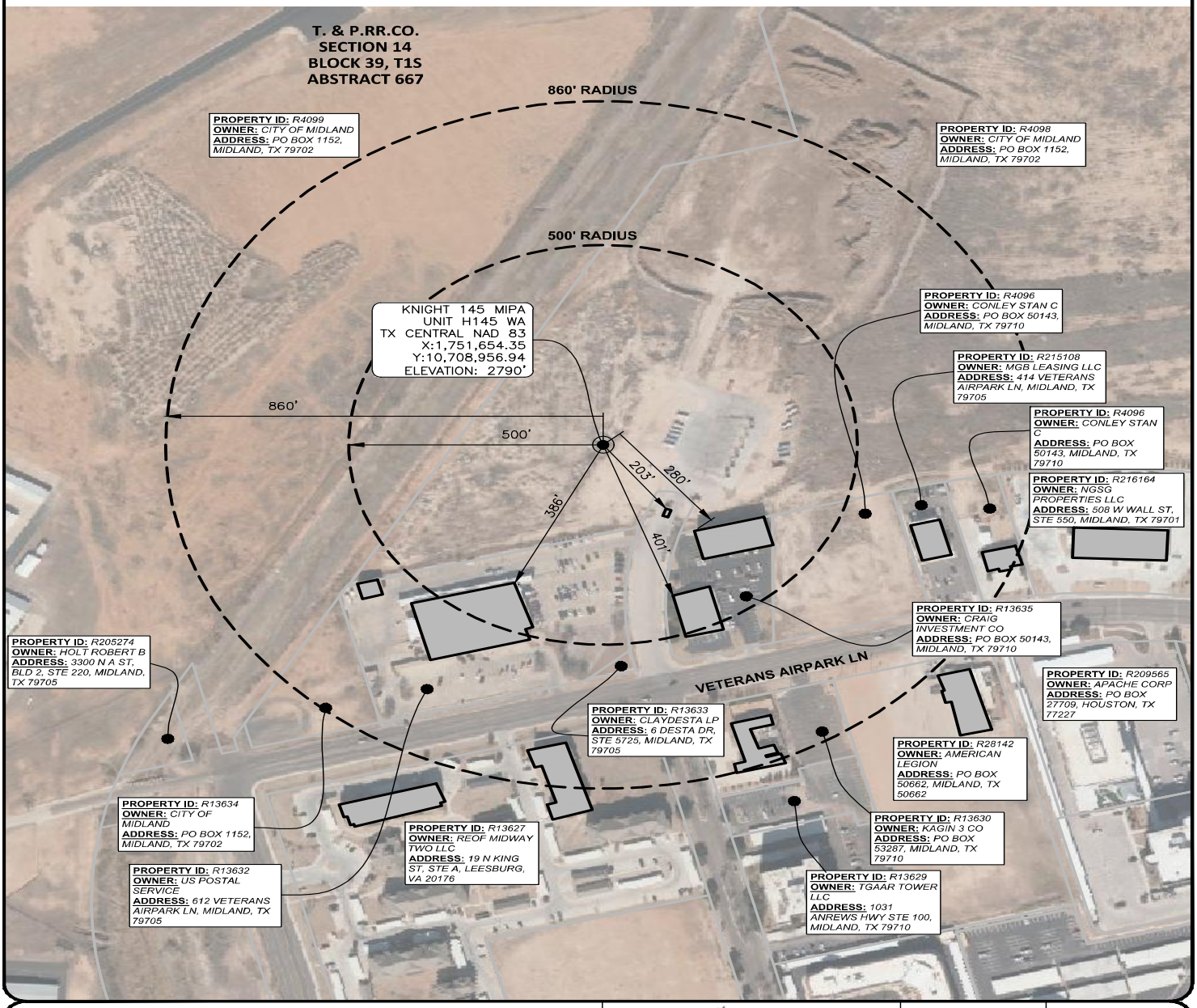
1. ORIGINAL DOCUMENT SIZE: 8.5" X 14"
2. THIS EXHIBIT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS. THIS IS NOT A "BOUNDARY SURVEY".
3. THE PROPOSED WELL LOCATION WAS SURVEYED ON 03-01-2023

## SYMBOL LEGEND:

- FIRE HYDRANT
- STORM DRAIN MANHOLE
- WATER VALVE

N / W / E / S

0' 150' 300'




WARNING: PLAT MAY NOT SHOW ALL CROSSINGS OF PIPELINES OR CABLES. USE TEXAS ONE CALL SYSTEM BEFORE EXCAVATION ON PROPERTY.

# WELL RADIUS

PROPOSED KNIGHT 145 MIPA UNIT H145 WA

T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S, ABSTRACT 667, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

WELL SECTION LINE TIES: 917' FSWL & 1,924' FNWL

NOTES:
1. SURVEY RECONSTRUCTION FILED IN THE OFFICE OF ATWELL, LLC.
2. ALL BEARING AND GRID COORDINATES SHOWN ARE BASED ON THE TEXAS COORDINATE SYSTEM OF NAD 83, CENTRAL ZONE.
3. THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY.

PERMIAN DEEP ROCK OIL COMPANY

ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

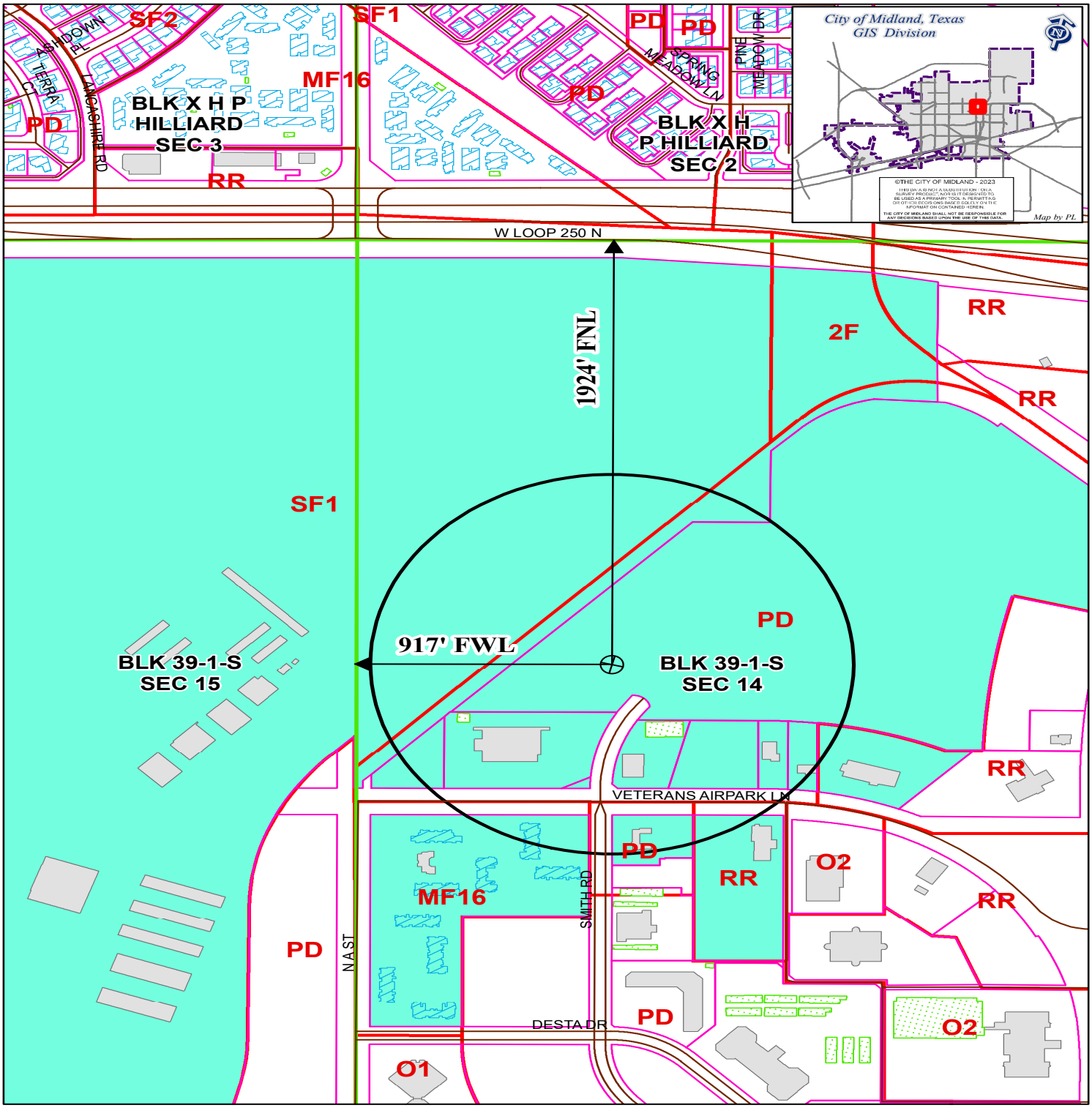
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| CHECKED | DC | DATE | 03-01-23 |
| APP'D | | DATE | |
| SCALE | 1"=300' | PAGE | 2 OF 4 |

| REV# | DATE | DESC. |
|---|---|---|
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| | |
|---|---|
| JOB NAME | WELL RADIUS |
| JOB NO. | 23001261 |



Date: Mar 02, 2023, 4:41pm User ID: rsolis
File: K:\23001261 – Airpark East & West Pad Revisions\11 MAPPING\00 PLAN SETS\00 PLAT – TENTATIVE PRELIM\01 REV 0\DWG\23001261 – Airpark East & West Pad Revisions – Knight 145 MIPA Unit H145 WA.dwg




# LOCATION AND ZONING MAP

**Oil - 050800 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,924' FNL and 917' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 9[illegible] feet east of North A Street extension and 1,924 feet south of W Loop 250 N.

**Knight 145 MIPA Unit H145WA**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, O2 | OFFICE |
| RE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| SF1, SF2, SF3 | ONE-FAMILY DWELLING | CR1, CR2, CLRB | LOCAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 08/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location):**
**Office buildings, City Collection Center, undeveloped pasture**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists**

**the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(2).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Knight 150 MIPA Unit H150LS

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 1953' FNL & 889' FWL, Section 14
Block 39, T1S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations)*. [See § J(16) and (20)].**

***ATTACHED AS EXHIBIT J* is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: Road use and repair agreement attached**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Co.
**[NAME OF COMPANY]**

**By** _____
**Its** General Manager

State of Texas )

County of Midland )

, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

[S E A L]

Estella Peña
Notary Public, State of Texas

## NOTES:

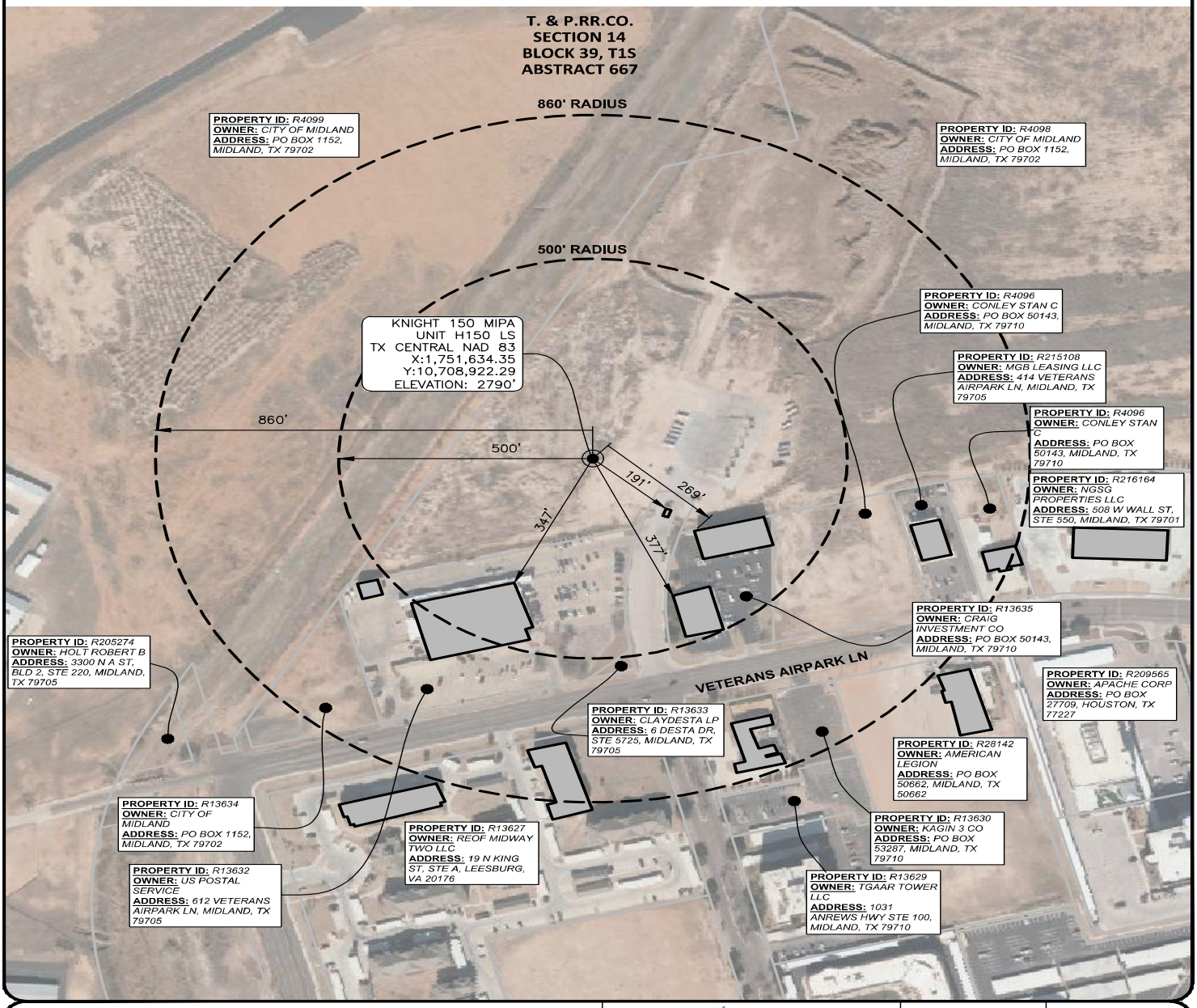
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2. THIS EXHIBIT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS. THIS IS NOT A "BOUNDARY SURVEY".
3. THE PROPOSED WELL LOCATION WAS SURVEYED ON 03-01-2023

## SYMBOL LEGEND:

- FIRE HYDRANT
- STORM DRAIN MANHOLE
- WATER VALVE

N / W / E / S

0' 150' 300'




WARNING: PLAT MAY NOT SHOW ALL CROSSINGS OF PIPELINES OR CABLES. USE TEXAS ONE CALL SYSTEM BEFORE EXCAVATION ON PROPERTY.

# WELL RADIUS

PROPOSED KNIGHT 150 MIPA UNIT H150 LS

T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S, ABSTRACT 667, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

WELL SECTION LINE TIES: 889' FSWL & 1,953' FNWL

NOTES:
1. SURVEY RECONSTRUCTION FILED IN THE OFFICE OF ATWELL, LLC.
2. ALL BEARING AND GRID COORDINATES SHOWN ARE BASED ON THE TEXAS COORDINATE SYSTEM OF NAD 83, CENTRAL ZONE.
3. THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY.

PERMIAN DEEP ROCK OIL COMPANY


ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

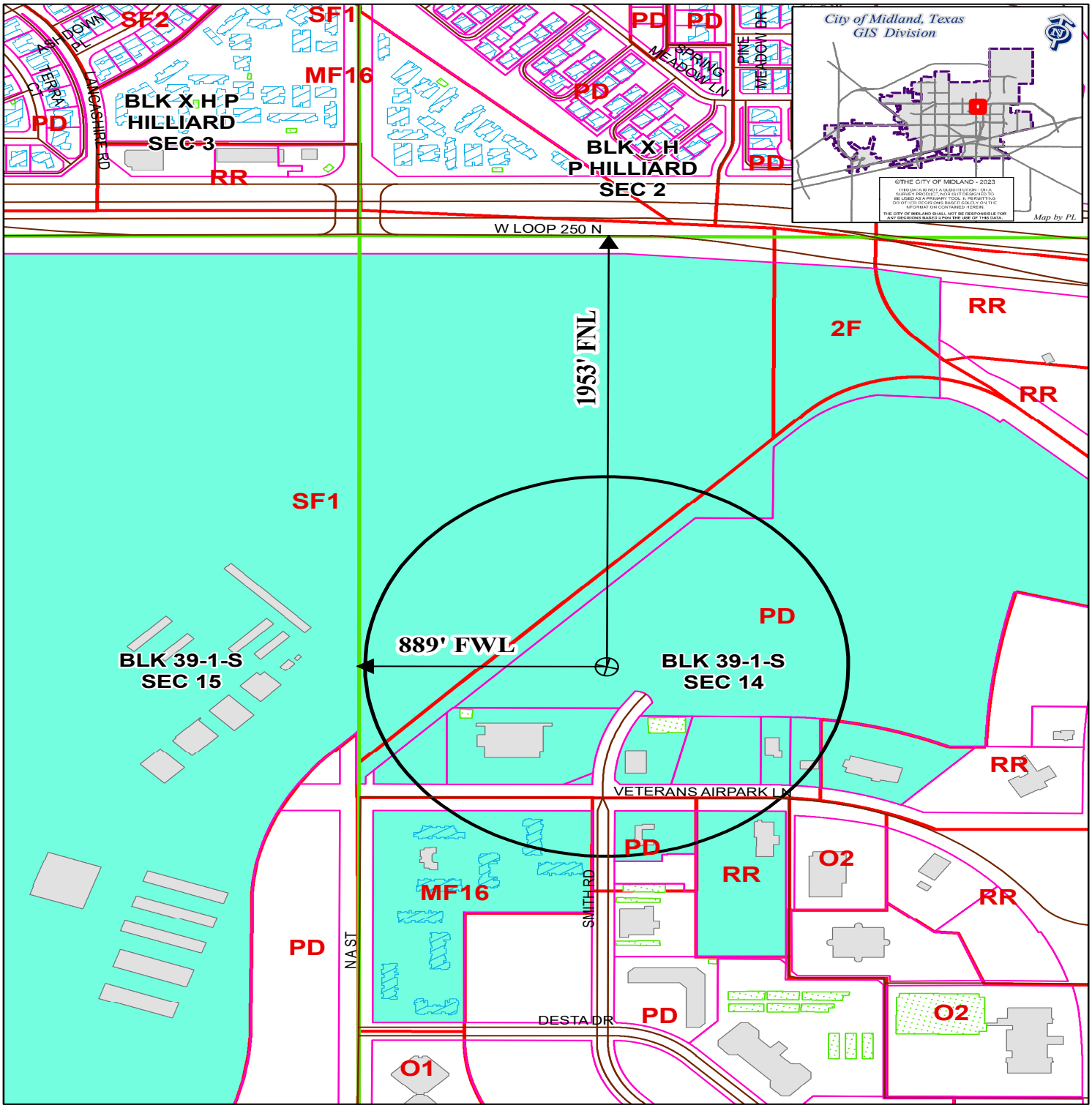

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| DRAWN | RS | DATE | 03-01-23 |
| CHECKED | DC | DATE | 03-01-23 |
| APP'D | | DATE | |
| SCALE | 1"=300' | PAGE | 2 OF 4 |

| REV# | DATE | DESC. |
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| JOB NAME | WELL RADIUS |
| JOB NO. | 23001261 |



Date: Mar 02, 2023, 4:37pm User ID: rsolis
File: K:\23001261 – Airpark East & West Pad Revisions\11 MAPPING\00 PLAN SETS\00 PLAT – TENTATIVE PRELIM\01 REV 0\DWG\23001261 – Airpark East & West Pad Revisions – Knight 150 MIPA Unit H150 LS.dwg




# LOCATION AND ZONING MAP

**Oil - 050802 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,953' FNL and 889' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 889 feet east of North A Street extension and 1,953 feet south of W Loop 250 N.

**Knight 150 MIPA Unit H150LS**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, 02 | OFFICE |
| RE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| SF1, SF2, SF3 | ONE-FAMILY DWELLING | CR1, CR2, CR3 | LOCAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 08/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location):**
**Office buildings, City Collection Center, undeveloped pasture**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists**

**the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(2).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Knight 150 MIPA Unit H150SS

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 1872' FNL & 796' FWL, Section 14
Block 39, T1S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations)*. [See § J(16) and (20)].**

***ATTACHED AS EXHIBIT J* is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: Road use and repair agreement attached**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Co.
**[NAME OF COMPANY]**

**By** _____
**Its** General Manager

State of Texas )

County of Midland )

, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

[S E A L]

Estella Peña
Notary Public, State of Texas

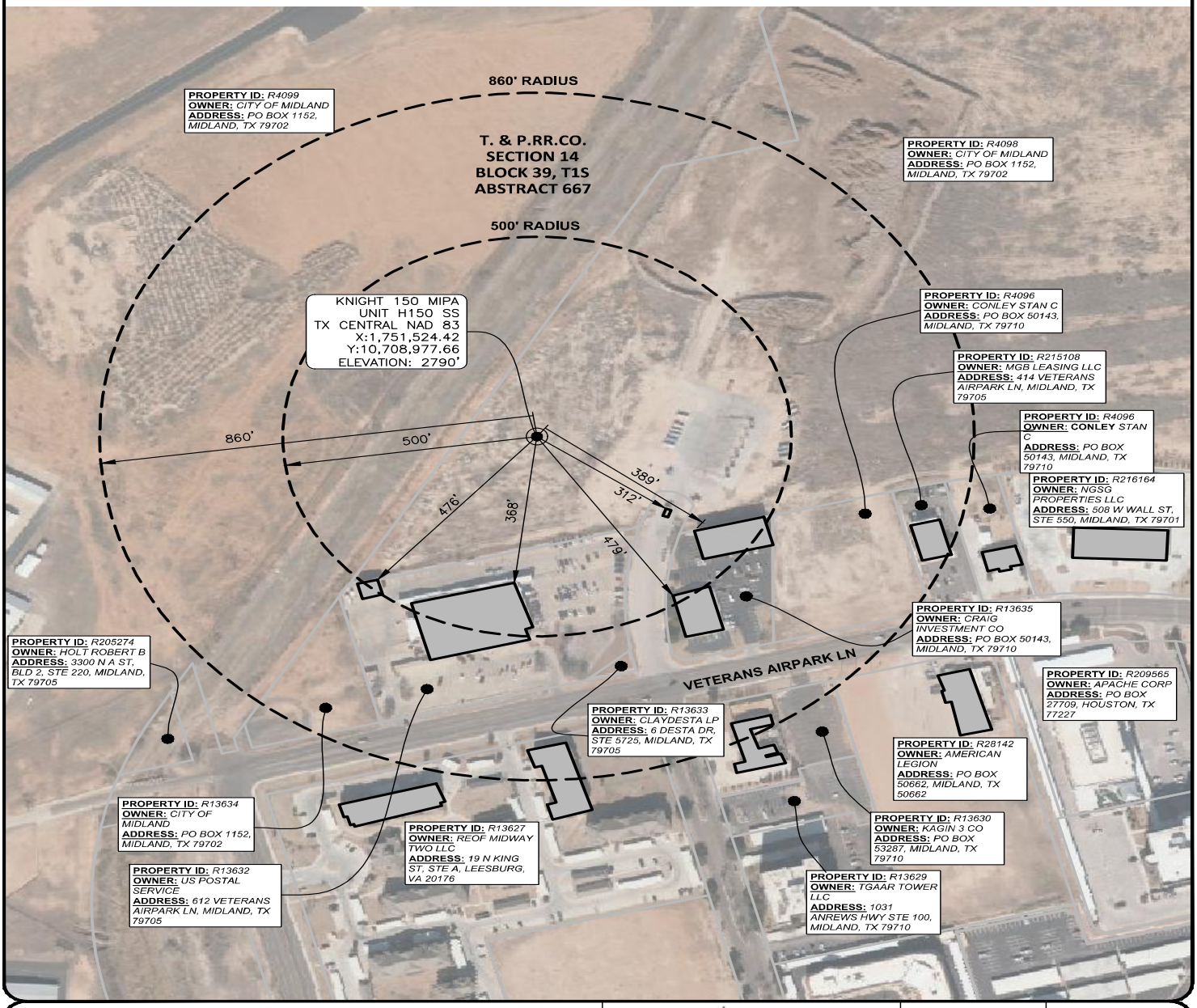
## NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 14"
2. THIS EXHIBIT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS. THIS IS NOT A "BOUNDARY SURVEY".
3. THE PROPOSED WELL LOCATION WAS SURVEYED ON 03-01-2023

## SYMBOL LEGEND:

- FIRE HYDRANT
- STORM DRAIN MANHOLE
- WATER VALVE

N
W E
S
0' 150' 300'




WARNING: PLAT MAY NOT SHOW ALL CROSSINGS OF PIPELINES OR CABLES. USE TEXAS ONE CALL SYSTEM BEFORE EXCAVATION ON PROPERTY.

# WELL RADIUS

PROPOSED KNIGHT 150 MIPA UNIT H150 SS

T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S, ABSTRACT 667, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 796' FSWL & 1,872' FNWL

NOTES:
1. SURVEY RECONSTRUCTION FILED IN THE OFFICE OF ATWELL, LLC.
2. ALL BEARING AND GRID COORDINATES SHOWN ARE BASED ON THE TEXAS COORDINATE SYSTEM OF NAD 83, CENTRAL ZONE.
3. THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY.

PERMIAN DEEP ROCK OIL COMPANY

ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

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| DRAWN | RS | DATE | 03-01-23 |
| CHECKED | DC | DATE | 03-01-23 |
| APP'D | | DATE | |
| SCALE | 1"=300' | PAGE | 2 OF 4 |

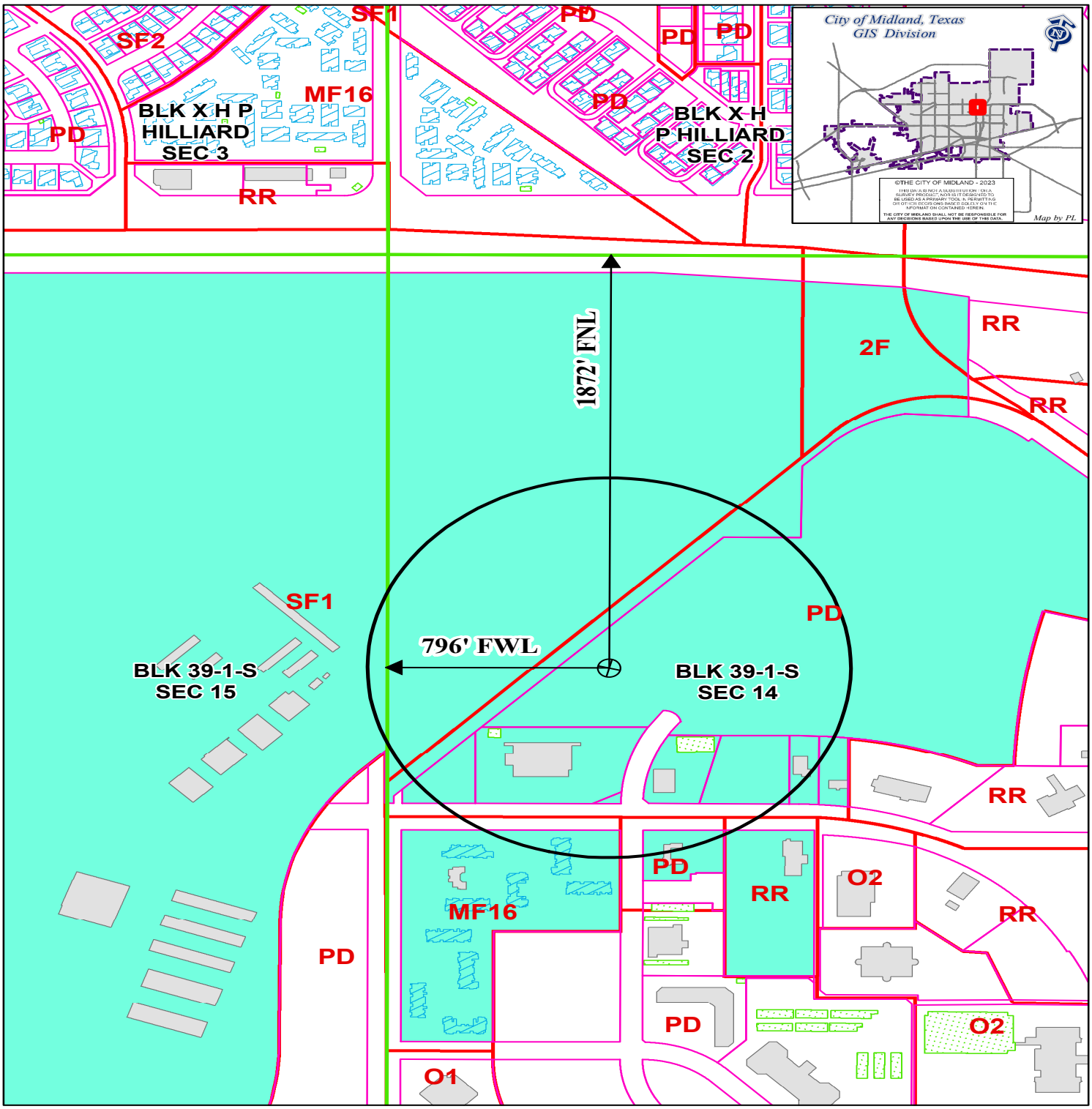
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|---|---|
| JOB NAME | WELL RADIUS |
| JOB NO. | 23001261 |

PACKET

November 14, 2023

Date: Mar 02, 2023, 3:40pm User ID: rsolis
File: K:\23001261 – Airpark East & West Pad Revisions\11 MAPPING\00 PLAN SETS\00 PLAT – TENTATIVE PRELIM\01 REV 0\DWG\23001261 – Airpark East & West Pad Revisions – Knight 150 MIPA Unit H150 SS.dwg




# LOCATION AND ZONING MAP

**Oil - 050803 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,872' FNL and 796' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 796 feet east of North A Street extension and 1,872 feet south of W Loop 250 N.

**Knight 150 MIPA Unit H150SS**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, 02 | OFFICE |
| CE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| SF1, SF2, SF3 | ONE-FAMILY DWELLING | CR1, CR2, CR3 | ROADSIDE RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 08/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location):**
**Office buildings, City Collection Center, undeveloped pasture**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists**

**the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(2).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Knight 150 MIPA Unit H150WB

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 1939' FNL & 903' FWL, Section 14
Block 39, T1S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations)*. [See § J(16) and (20)].**

***ATTACHED AS EXHIBIT J* is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: Road use and repair agreement attached**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Co.
**[NAME OF COMPANY]**

**By** _____
**Its** General Manager

State of Texas )

County of Midland )

, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

[S E A L]

Estella Peña
Notary Public, State of Texas

## NOTES:

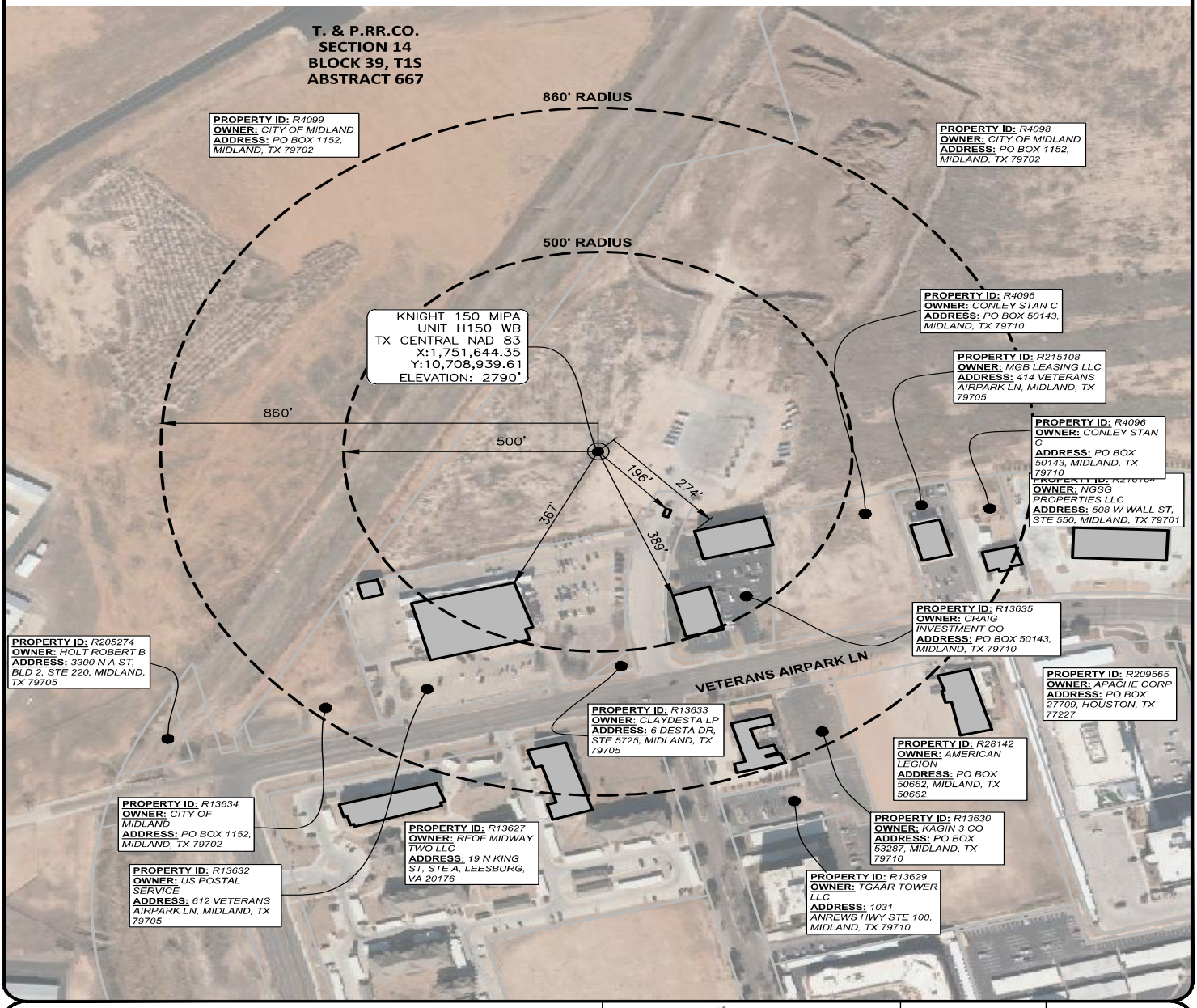
1. ORIGINAL DOCUMENT SIZE: 8.5" X 14"
2. THIS EXHIBIT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS. THIS IS NOT A "BOUNDARY SURVEY".
3. THE PROPOSED WELL LOCATION WAS SURVEYED ON 03-01-2023

## SYMBOL LEGEND:

- FIRE HYDRANT
- STORM DRAIN MANHOLE
- WATER VALVE

N / W / E / S

0' 150' 300'




WARNING: PLAT MAY NOT SHOW ALL CROSSINGS OF PIPELINES OR CABLES. USE TEXAS ONE CALL SYSTEM BEFORE EXCAVATION ON PROPERTY.

# WELL RADIUS

PROPOSED KNIGHT 150 MIPA UNIT H150 WB

T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S, ABSTRACT 667, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

WELL SECTION LINE TIES: 903' FSWL & 1,939' FNWL

NOTES:
1. SURVEY RECONSTRUCTION FILED IN THE OFFICE OF ATWELL, LLC.
2. ALL BEARING AND GRID COORDINATES SHOWN ARE BASED ON THE TEXAS COORDINATE SYSTEM OF NAD 83, CENTRAL ZONE.
3. THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY.

PERMIAN DEEP ROCK OIL COMPANY

ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

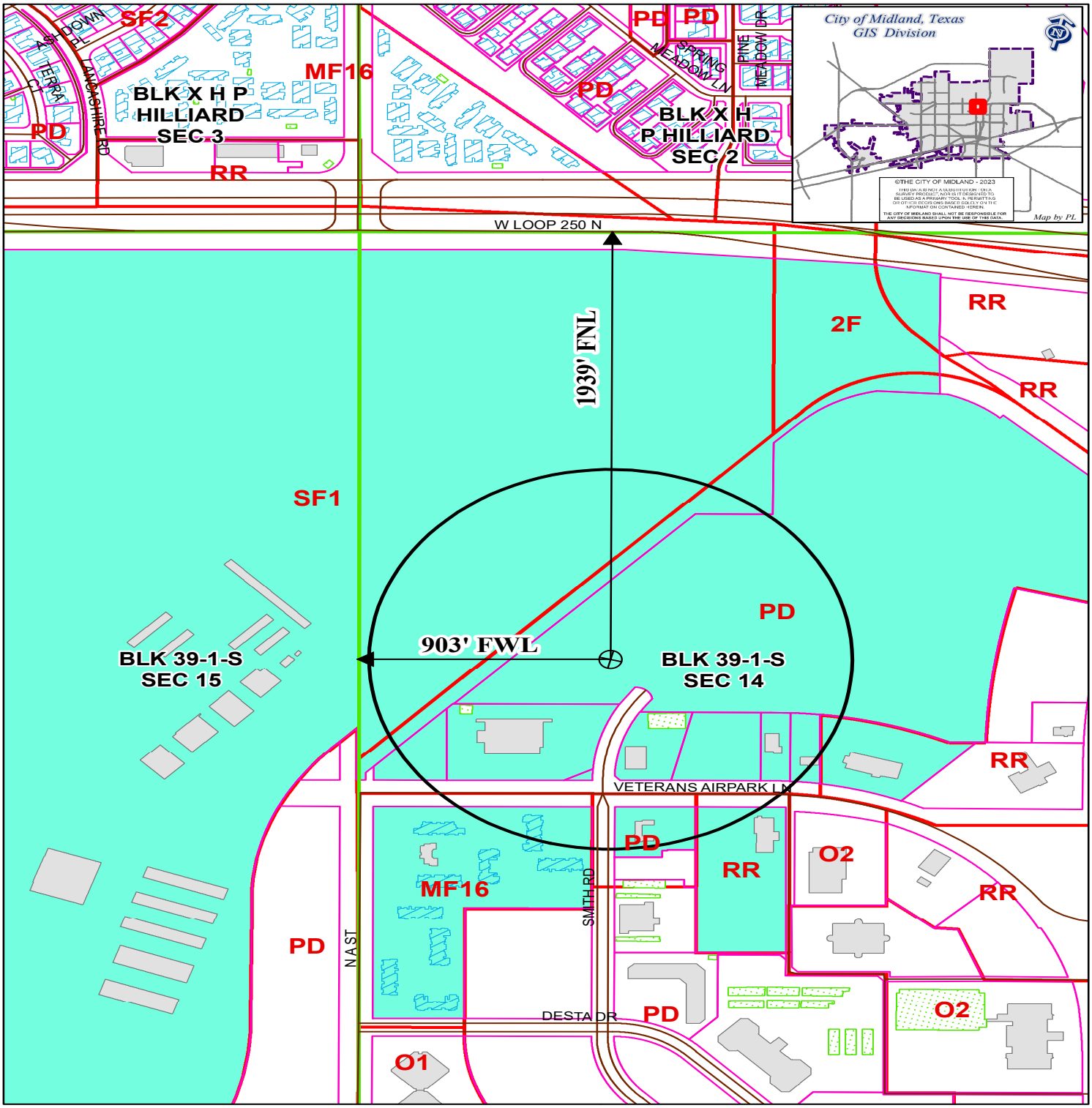
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|---|---|---|---|
| DRAWN | RS | DATE | 03-01-23 |
| CHECKED | DC | DATE | 03-01-23 |
| APP'D | | DATE | |
| SCALE | 1"=300' | PAGE | 2 OF 4 |

| REV# | DATE | DESC. |
|---|---|---|
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| | | |
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| | |
|---|---|
| JOB NAME | WELL RADIUS |
| JOB NO. | 23001261 |

PACKET 25 150 November 14, 2023

Date: Mar 02, 2023, 4:39pm User ID: rsolis
File: K:\23001261 – Airpark East & West Pad Revisions\11 MAPPING\00 PLAN SETS\00 PLAT – TENTATIVE PRELIM\01 REV 0\DWG\23001261 – Airpark East & West Pad Revisions – Knight 150 MIPA Unit H150 WB.dwg




# LOCATION AND ZONING MAP

**Oil - 050804 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,939' FNL and 903' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 903 feet east of North A Street extension and 1,939 feet south of W Loop 250 N.

**Knight 150 MIPA Unit H150WB**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, O2 | OFFICE |
| RE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| RR, 1F1, 1F2, 1F3 | ONE-FAMILY DWELLING | CR1, CR2, CLRB | LOCAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 08/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location):**
**Office buildings, City Collection Center, undeveloped pasture**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists**

**the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(2).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Knight 155 MIPA Unit H155WA

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 1886' FNL & 782' FWL, Section 14
Block 39, T1S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations)*. [See § J(16) and (20)].**

***ATTACHED AS EXHIBIT J* is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: Road use and repair agreement attached**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Co.
**[NAME OF COMPANY]**

**By** _____
**Its** General Manager

State of Texas )

County of Midland )

, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

[S E A L]

Estella Peña
Notary Public, State of Texas

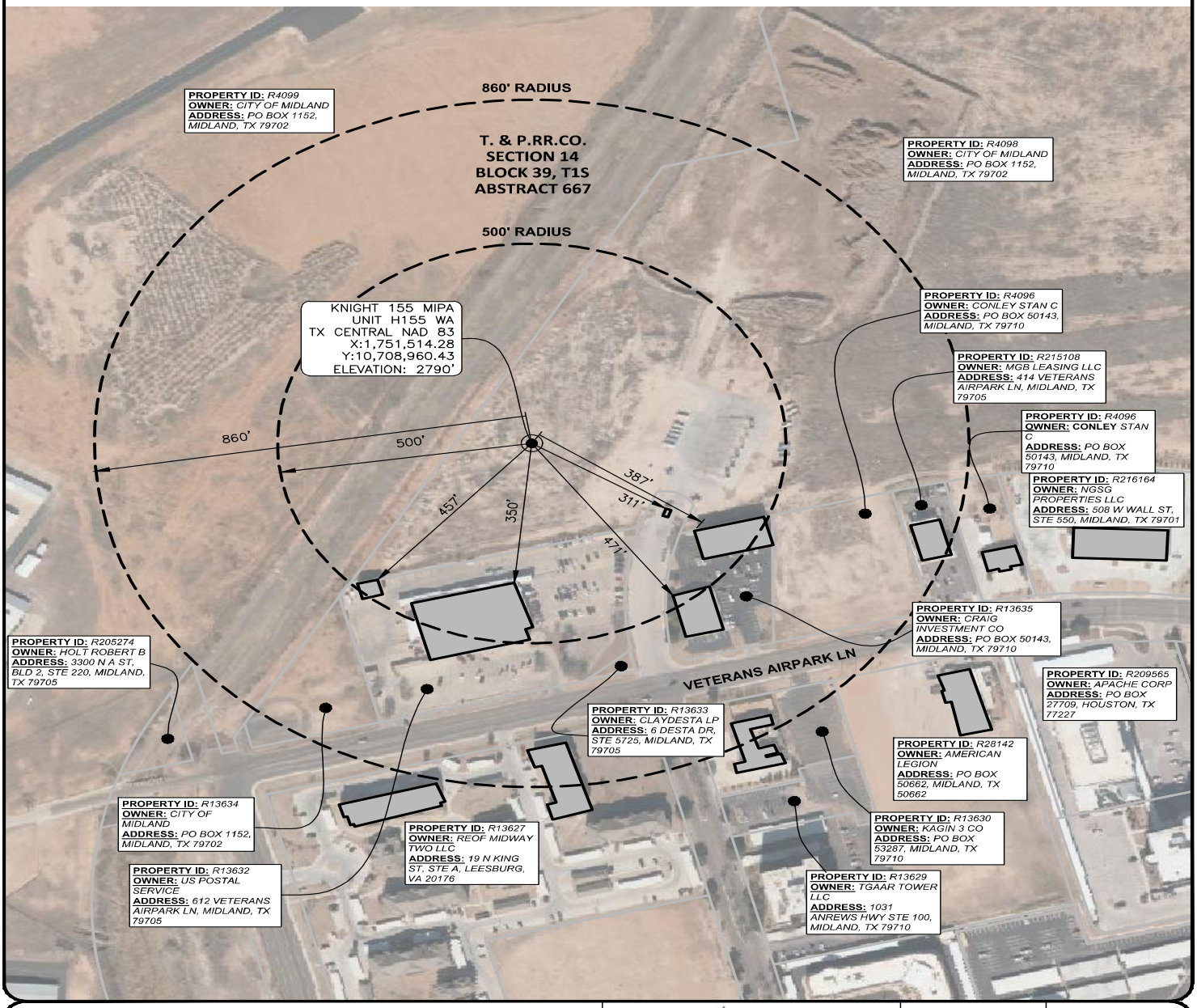
## NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 14"
2. THIS EXHIBIT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS. THIS IS NOT A "BOUNDARY SURVEY".
3. THE PROPOSED WELL LOCATION WAS SURVEYED ON 03-01-2023

## SYMBOL LEGEND:

- FIRE HYDRANT
- STORM DRAIN MANHOLE
- WATER VALVE

N
W E
S
0' 150' 300'




WARNING: PLAT MAY NOT SHOW ALL CROSSINGS OF PIPELINES OR CABLES. USE TEXAS ONE CALL SYSTEM BEFORE EXCAVATION ON PROPERTY.

# WELL RADIUS

PROPOSED KNIGHT 155 MIPA UNIT H155 WA

T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S, ABSTRACT 667, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 782' FSWL & 1,886' FNWL

NOTES:
1. SURVEY RECONSTRUCTION FILED IN THE OFFICE OF ATWELL, LLC.
2. ALL BEARING AND GRID COORDINATES SHOWN ARE BASED ON THE TEXAS COORDINATE SYSTEM OF NAD 83, CENTRAL ZONE.
3. THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY.

PERMIAN DEEP ROCK OIL COMPANY

ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

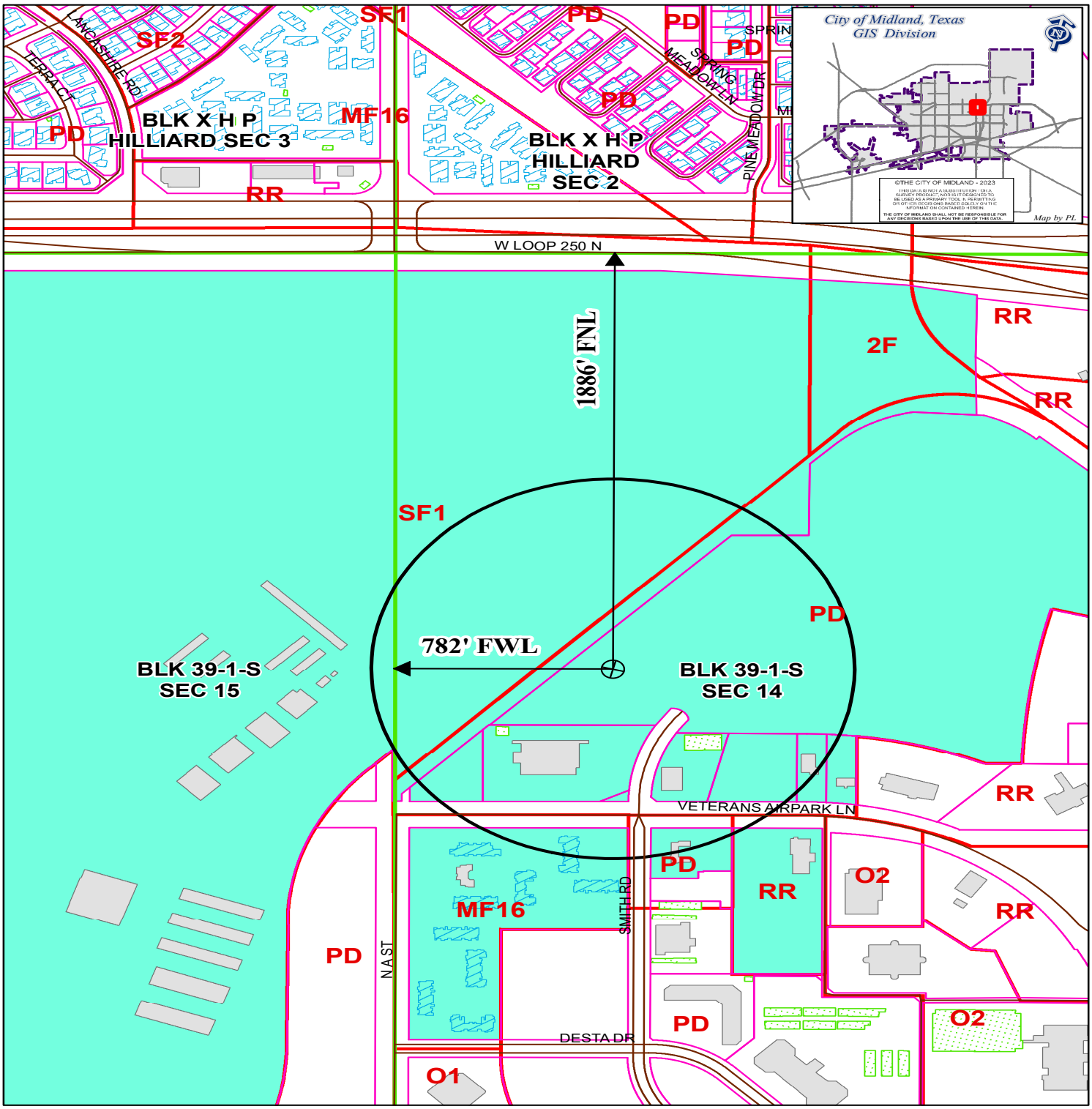
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| DRAWN | RS | DATE | 03-01-23 |
| CHECKED | DC | DATE | 03-01-23 |
| APP'D | | DATE | |
| SCALE | 1"=300' | PAGE | 2 OF 4 |

| REV# | DATE | DESC. |
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| | |
|---|---|
| JOB NAME | WELL RADIUS |
| JOB NO. | 23001261 |



Date: Mar 02, 2023, 3:44pm User ID: rsolis
File: K:\23001261 – Airpark East & West Pad Revisions\11 MAPPING\00 PLAN SETS\00 PLAT – TENTATIVE PRELIM\01 REV 0\DWG\23001261 – Airpark East & West Pad Revisions – Knight 155 MIPA Unit H155 WA.dwg




# LOCATION AND ZONING MAP

**Oil - 050805 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,886' FNL and 782' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 782 feet east of North A Street extension and 1,886 feet south of W Loop 250 N.

**Knight 155 MIPA Unit H155WA**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, 02 | OFFICE |
| RE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| SF1, SF2, 1F3 | ONE-FAMILY DWELLING | CR1, CR2, CLRB | LOCAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 08/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location):**
**Office buildings, City Collection Center, undeveloped pasture**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists**

**the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(2).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Knight 160 MIPA Unit H160LS

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 2053' FNL & 791' FWL, Section 14
Block 39, T1S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations)*. [See § J(16) and (20)].**

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***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: Road use and repair agreement attached**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Co.
**[NAME OF COMPANY]**

**By** _____
**Its** General Manager

State of Texas )

County of Midland )

, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

[S E A L]

Estella Peña
Notary Public, State of Texas

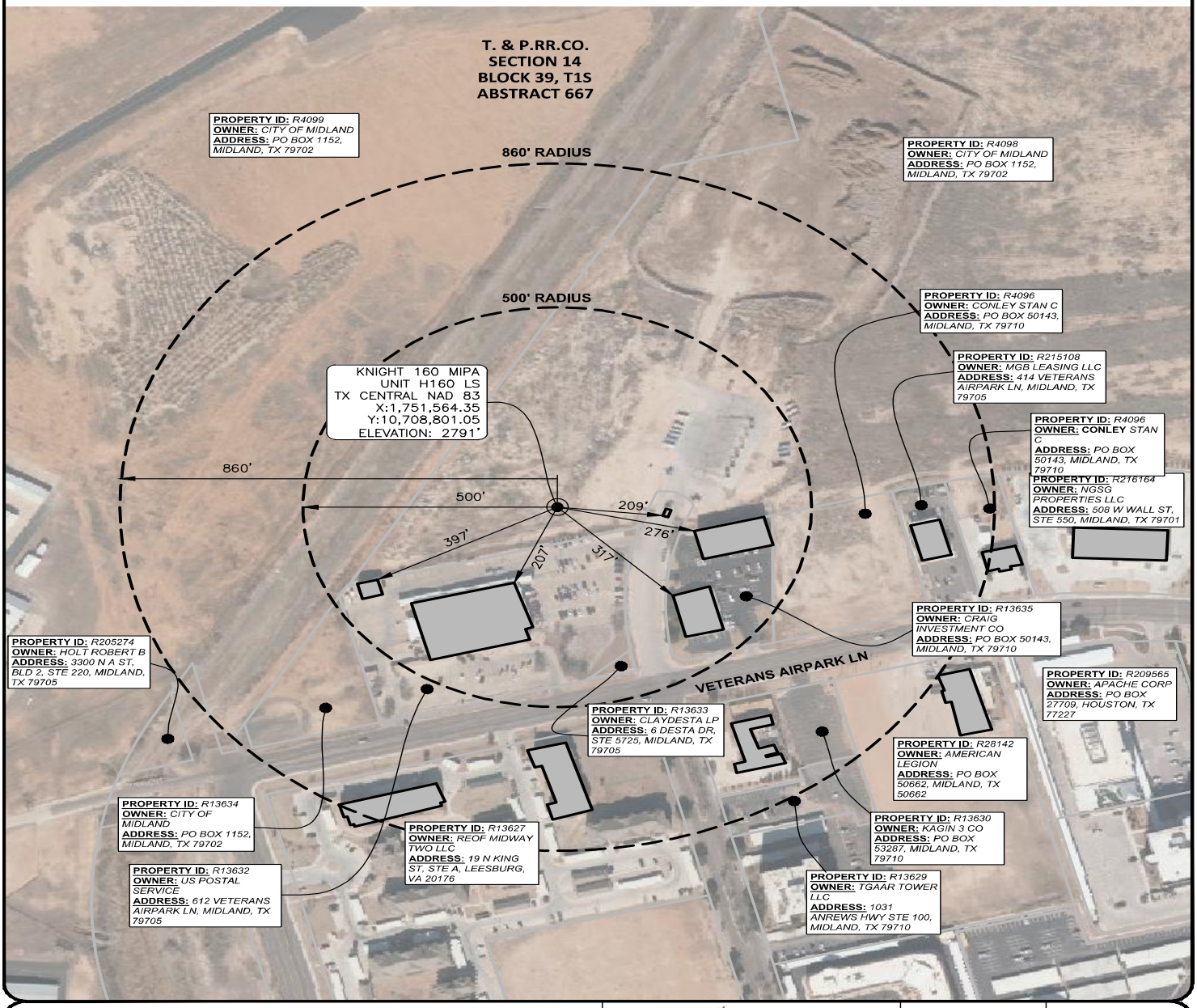
## NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 14"
2. THIS EXHIBIT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS. THIS IS NOT A "BOUNDARY SURVEY".
3. THE PROPOSED WELL LOCATION WAS SURVEYED ON 03-01-2023

## SYMBOL LEGEND:

- FIRE HYDRANT
- STORM DRAIN MANHOLE
- WATER VALVE

N
W E
S
0' 150' 300'




WARNING: PLAT MAY NOT SHOW ALL CROSSINGS OF PIPELINES OR CABLES. USE TEXAS ONE CALL SYSTEM BEFORE EXCAVATION ON PROPERTY.

# WELL RADIUS

PROPOSED KNIGHT 160 MIPA UNIT H160 LS

T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S, ABSTRACT 667, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

WELL SECTION LINE TIES: 791' FSWL & 2,053' FNWL

NOTES:
1. SURVEY RECONSTRUCTION FILED IN THE OFFICE OF ATWELL, LLC.
2. ALL BEARING AND GRID COORDINATES SHOWN ARE BASED ON THE TEXAS COORDINATE SYSTEM OF NAD 83, CENTRAL ZONE.
3. THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY.

PERMIAN DEEP ROCK OIL COMPANY

ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

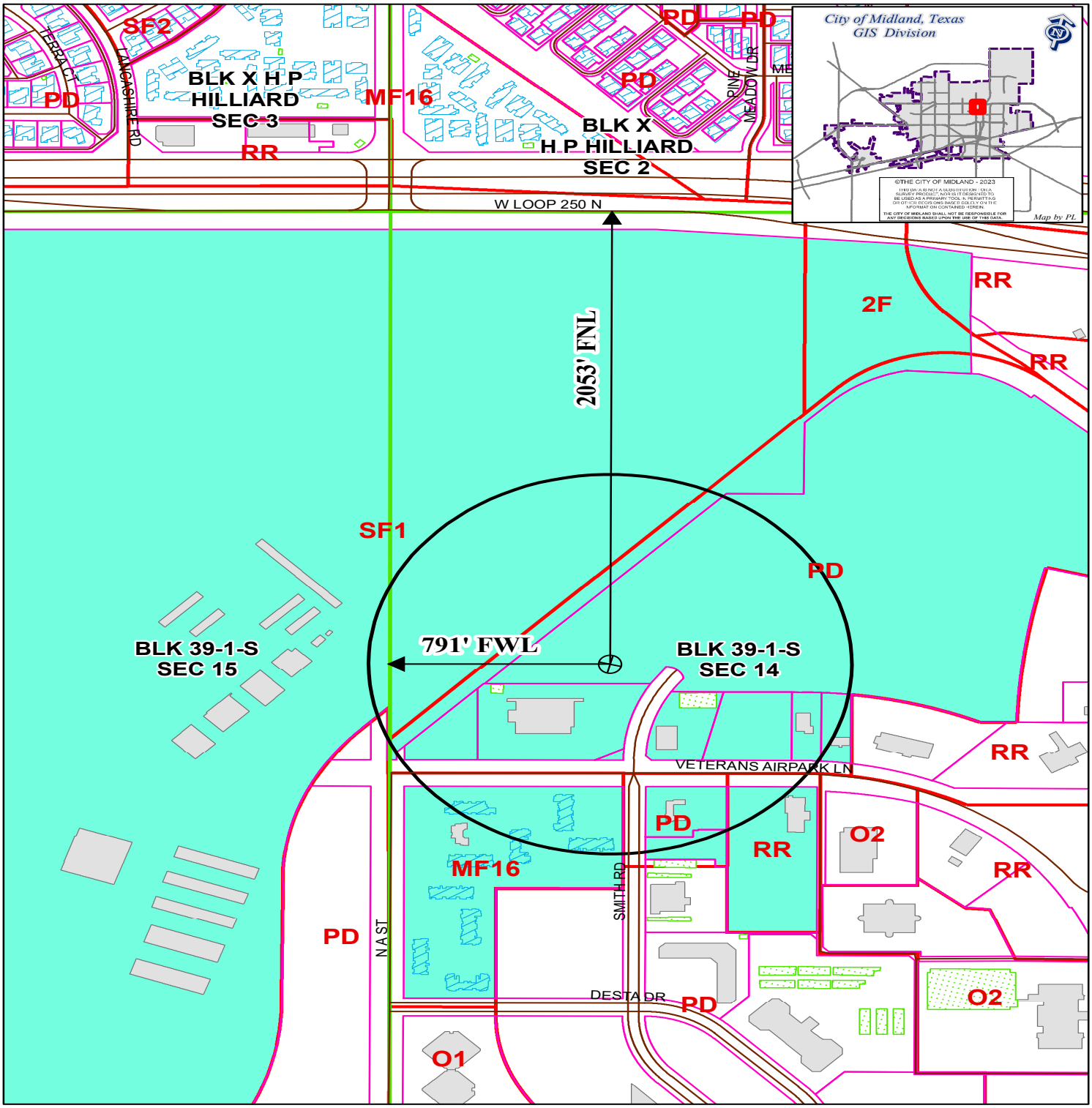
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| DRAWN | RS | DATE | 03-01-23 |
| CHECKED | DC | DATE | 03-01-23 |
| APP'D | | DATE | |
| SCALE | 1"=300' | PAGE | 2 OF 4 |

| REV# | DATE | DESC. |
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|---|---|
| JOB NAME | WELL RADIUS |
| JOB NO. | 23001261 |



Date: Mar 02, 2023, 3:49pm User ID: rsolis
File: K:\23001261 – Airpark East & West Pad Revisions\11 MAPPING\00 PLAN SETS\00 PLAT – TENTATIVE PRELIM\01 REV 0\DWG\23001261 – Airpark East & West Pad Revisions – Knight 160 MIPA Unit H160 LS.dwg




# LOCATION AND ZONING MAP

**Oil - 050806 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 2,053' FNL and 791' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 791 feet east of North A Street extension and 2,053 feet south of W Loop 250 N.

**Knight 160 MIPA Unit H160LS**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | O1, O2 | OFFICE |
| RE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| SF1, SF2, SF3 | ONE-FAMILY DWELLING | CR1, CR2, CR3 | LOCAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 04/03/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes ✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location):**
**Office buildings, City Collection Center, undeveloped pasture**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists**

**the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Knight 160 MIPA Unit H160MS

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 1900' FNL & 768' FWL, Section 14
Block 39, T1S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations).* [See § J(16) and (20)].**

***ATTACHED AS EXHIBIT J* is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: Road use and repair agreement attached**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Co.
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas )

County of Midland )

, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

[S E A L]

Estella Peña
Notary Public, State of Texas

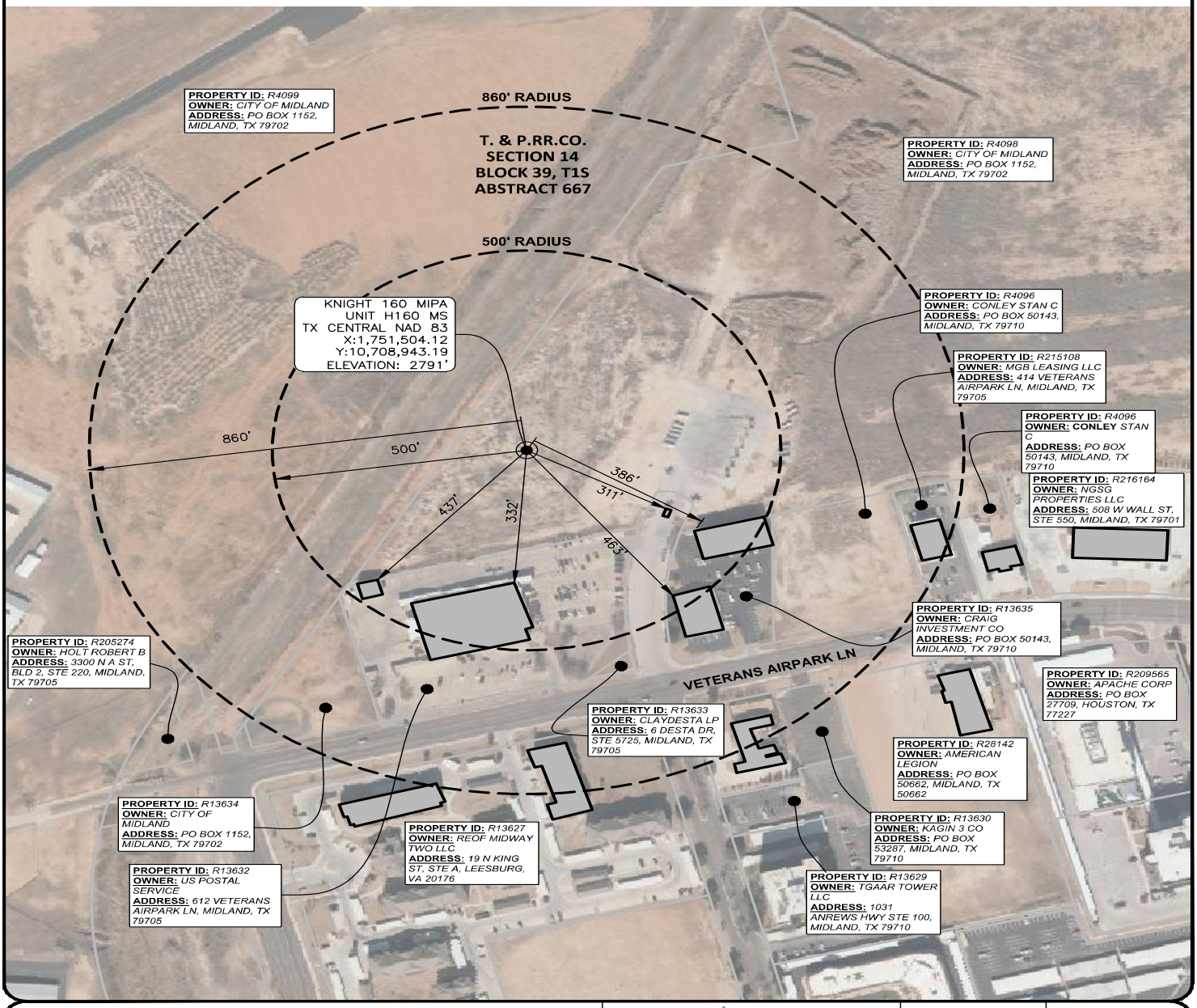
## NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 14"
2. THIS EXHIBIT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS. THIS IS NOT A "BOUNDARY SURVEY".
3. THE PROPOSED WELL LOCATION WAS SURVEYED ON 03-01-2023

## SYMBOL LEGEND:

- FIRE HYDRANT
- STORM DRAIN MANHOLE
- WATER VALVE

N
W E
S
0' 150' 300'




WARNING: PLAT MAY NOT SHOW ALL CROSSINGS OF PIPELINES OR CABLES. USE TEXAS ONE CALL SYSTEM BEFORE EXCAVATION ON PROPERTY.

# WELL RADIUS

PROPOSED KNIGHT 160 MIPA UNIT H160 MS

T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S, ABSTRACT 667, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 768' FSWL & 1,900' FNWL

NOTES:
1. SURVEY RECONSTRUCTION FILED IN THE OFFICE OF ATWELL, LLC.
2. ALL BEARING AND GRID COORDINATES SHOWN ARE BASED ON THE TEXAS COORDINATE SYSTEM OF NAD 83, CENTRAL ZONE.
3. THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY.

PERMIAN DEEP ROCK OIL COMPANY

ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

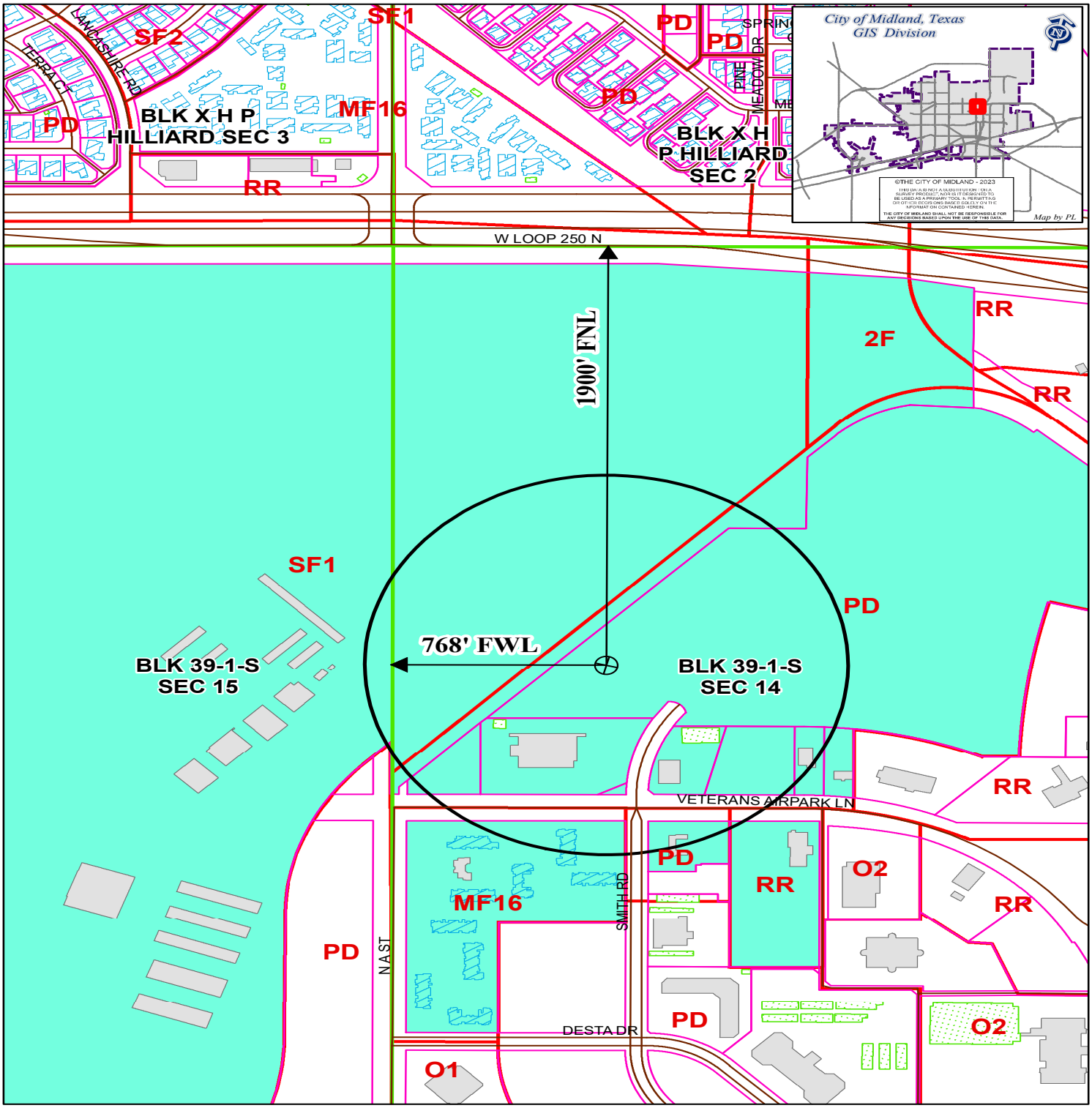
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| CHECKED | DC | DATE | 03-01-23 |
| APP'D | | DATE | |
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| JOB NAME | WELL RADIUS |
| JOB NO. | 23001261 |



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# LOCATION AND ZONING MAP

**Oil - 050807 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,900' FNL and 768' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 768 feet east of North A Street extension and 1,900 feet south of W Loop 250 N.

**Knight 160 MIPA Unit H160MS**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, O2 | OFFICE |
| RE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| SF1, SF2, SF3 | ONE-FAMILY DWELLING | C1R, C2R, C3R | LOCAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 08/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

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**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location):**
**Office buildings, City Collection Center, undeveloped pasture**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists**

**the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(2).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Knight 160 MIPA Unit H160WB

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 2038' FNL & 805' FWL, Section 14
Block 39, T1S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

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***ATTACHED AS EXHIBIT M*: Road use and repair agreement attached**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

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See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

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***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

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***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Co.
**[NAME OF COMPANY]**

**By** _____
**Its** General Manager

State of Texas )

County of Midland )

, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

[S E A L]

Estella Peña
Notary Public, State of Texas

## NOTES:

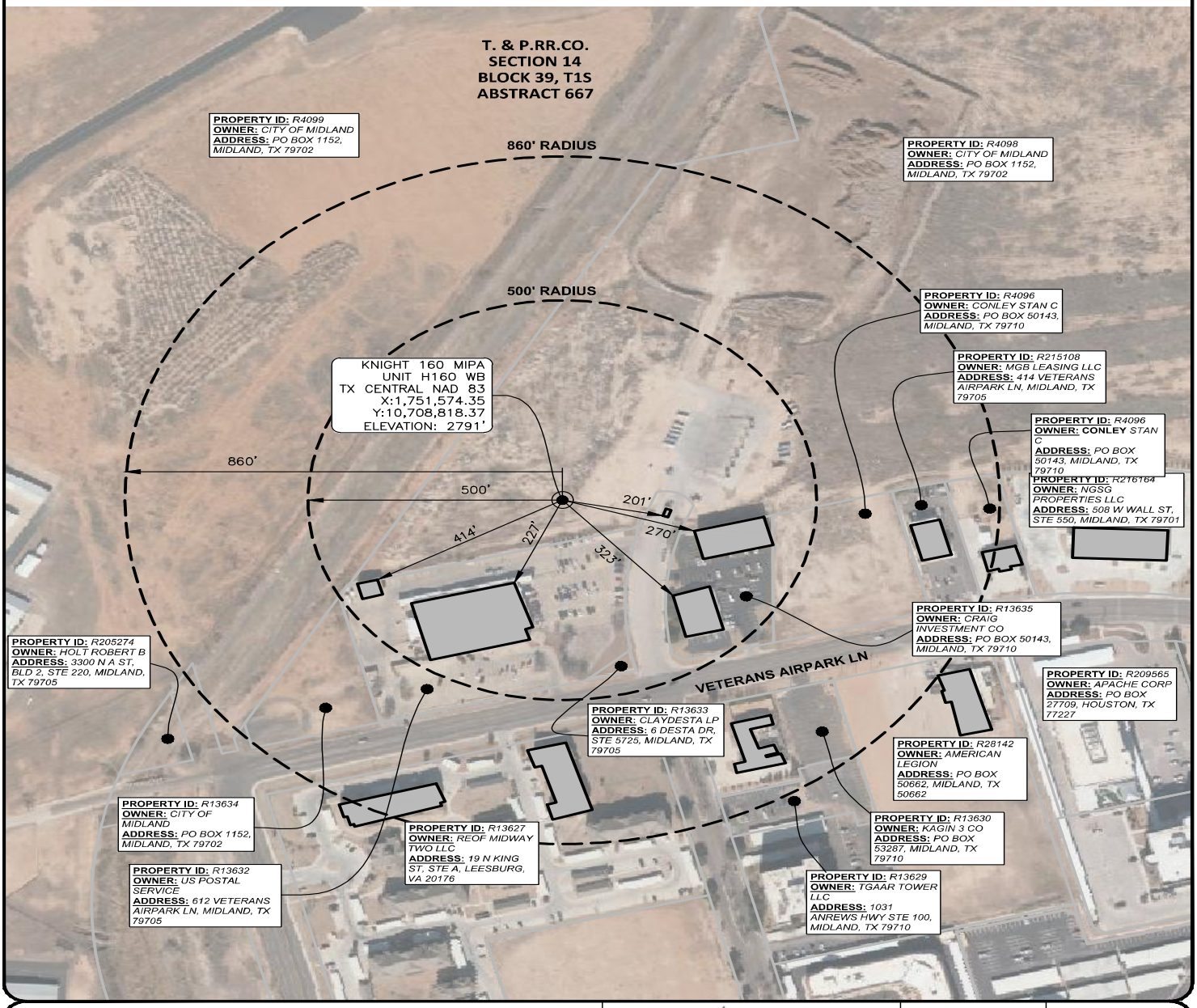
1. ORIGINAL DOCUMENT SIZE: 8.5" X 14"
2. THIS EXHIBIT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS. THIS IS NOT A "BOUNDARY SURVEY".
3. THE PROPOSED WELL LOCATION WAS SURVEYED ON 03-01-2023

## SYMBOL LEGEND:

- FIRE HYDRANT
- STORM DRAIN MANHOLE
- WATER VALVE

N W E S

0' 150' 300'




WARNING: PLAT MAY NOT SHOW ALL CROSSINGS OF PIPELINES OR CABLES. USE TEXAS ONE CALL SYSTEM BEFORE EXCAVATION ON PROPERTY.

# WELL RADIUS

PROPOSED KNIGHT 160 MIPA UNIT H160 WB

T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S, ABSTRACT 667, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

WELL SECTION LINE TIES: 805' FSWL & 2,038' FNWL

NOTES:
1. SURVEY RECONSTRUCTION FILED IN THE OFFICE OF ATWELL, LLC.
2. ALL BEARING AND GRID COORDINATES SHOWN ARE BASED ON THE TEXAS COORDINATE SYSTEM OF NAD 83, CENTRAL ZONE.
3. THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY.

PERMIAN DEEP ROCK OIL COMPANY

ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

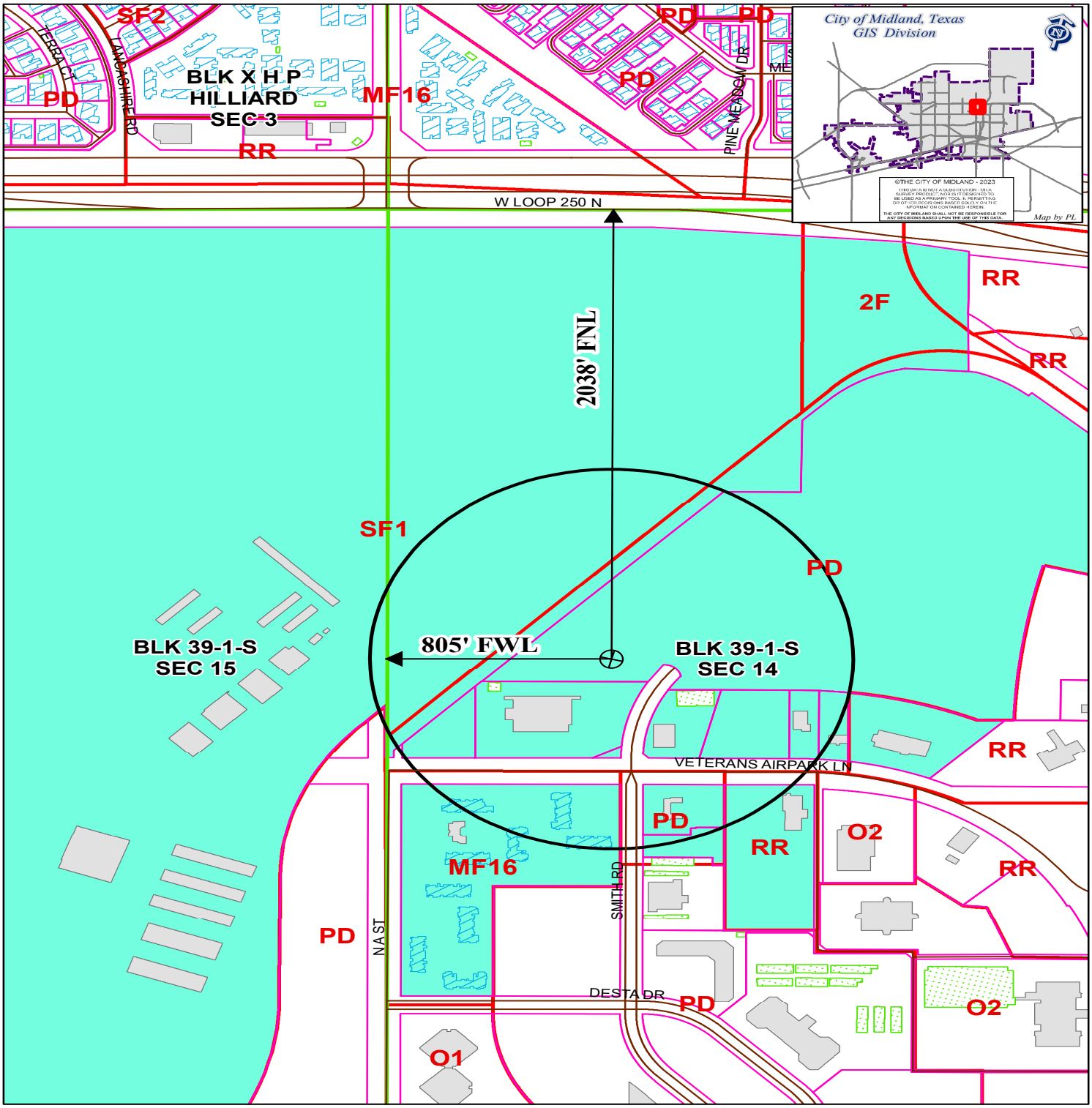
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| | |
|---|---|
| JOB NAME | WELL RADIUS |
| JOB NO. | 23001261 |



Date: Mar 02, 2023, 3:51pm User ID: rsolis
File: K:\23001261 – Airpark East & West Pad Revisions\11 MAPPING\00 PLAN SETS\00 PLAT – TENTATIVE PRELIM\01 REV 0\DWG\23001261 – Airpark East & West Pad Revisions – Knight 160 MIPA Unit H160 WB.dwg




# LOCATION AND ZONING MAP

**Oil - 050808 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 2,038' FNL and 805' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 805 feet east of North A Street extension and 2,038 feet south of W Loop 250 N.

**Knight 160 MIPA Unit H160WB**

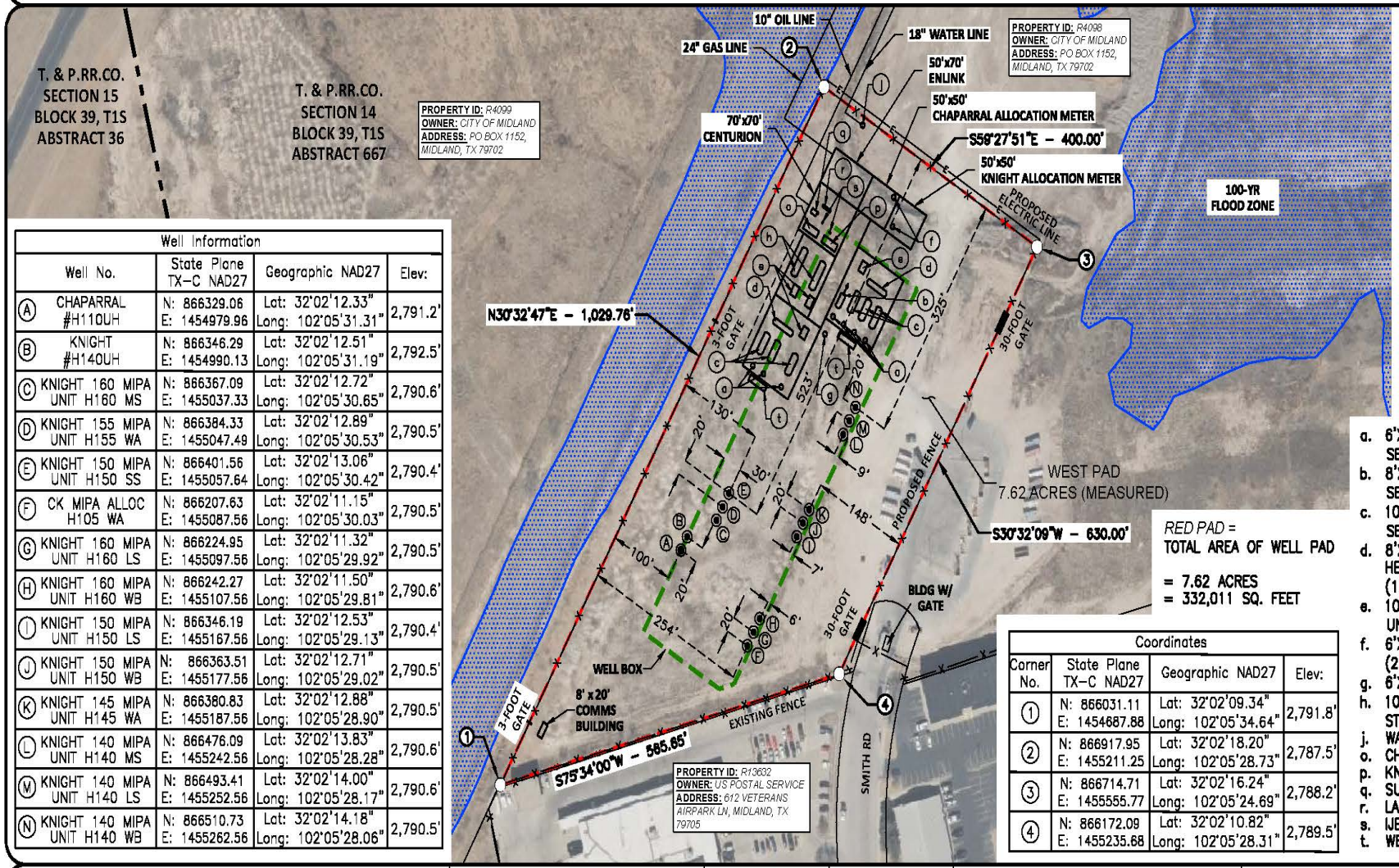
## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, 02 | OFFICE |
| RE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| SF1, SF2, SF3 | ONE-FAMILY DWELLING | CR1, CR2, CLRB | LOCAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# MIDLAND COUNTY, TEXAS




| Well Information | | | |
|---|---|---|---|
| Well No. | State Plane TX–C NAD27 | Geographic NAD27 | Elev: |
| Ⓐ CHAPARRAL #H110UH | N: 866329.06 E: 1454979.96 | Lat: 32°02'12.33" Long: 102°05'31.31" | 2,791.2' |
| Ⓑ KNIGHT #H140UH | N: 866346.29 E: 1454990.13 | Lat: 32°02'12.51" Long: 102°05'31.19" | 2,792.5' |
| Ⓒ KNIGHT 160 MIPA UNIT H160 MS | N: 866367.09 E: 1455037.33 | Lat: 32°02'12.72" Long: 102°05'30.65" | 2,790.6' |
| Ⓓ KNIGHT 155 MIPA UNIT H155 WA | N: 866384.33 E: 1455047.49 | Lat: 32°02'12.89" Long: 102°05'30.53" | 2,790.5' |
| Ⓔ KNIGHT 150 MIPA UNIT H150 SS | N: 866401.56 E: 1455057.64 | Lat: 32°02'13.06" Long: 102°05'30.42" | 2,790.4' |
| Ⓕ CK MIPA ALLOC H105 WA | N: 866207.63 E: 1455087.56 | Lat: 32°02'11.15" Long: 102°05'30.03" | 2,790.5' |
| Ⓖ KNIGHT 160 MIPA UNIT H160 LS | N: 866224.95 E: 1455097.56 | Lat: 32°02'11.32" Long: 102°05'29.92" | 2,790.5' |
| Ⓗ KNIGHT 160 MIPA UNIT H160 WB | N: 866242.27 E: 1455107.56 | Lat: 32°02'11.50" Long: 102°05'29.81" | 2,790.6' |
| Ⓘ KNIGHT 150 MIPA UNIT H150 LS | N: 866346.19 E: 1455167.56 | Lat: 32°02'12.53" Long: 102°05'29.13" | 2,790.4' |
| Ⓙ KNIGHT 150 MIPA UNIT H150 WB | N: 866363.51 E: 1455177.56 | Lat: 32°02'12.71" Long: 102°05'29.02" | 2,790.5' |
| Ⓚ KNIGHT 145 MIPA UNIT H145 WA | N: 866380.83 E: 1455187.56 | Lat: 32°02'12.88" Long: 102°05'28.90" | 2,790.5' |
| Ⓛ KNIGHT 140 MIPA UNIT H140 MS | N: 866476.09 E: 1455242.56 | Lat: 32°02'13.83" Long: 102°05'28.28" | 2,790.6' |
| Ⓜ KNIGHT 140 MIPA UNIT H140 LS | N: 866493.41 E: 1455252.56 | Lat: 32°02'14.00" Long: 102°05'28.17" | 2,790.6' |
| Ⓝ KNIGHT 140 MIPA UNIT H140 WB | N: 866510.73 E: 1455262.56 | Lat: 32°02'14.18" Long: 102°05'28.06" | 2,790.5' |

RED PAD =
TOTAL AREA OF WELL PAD

= 7.62 ACRES
= 332,011 SQ. FEET

| Coordinates | | | |
|---|---|---|---|
| Corner No. | State Plane TX–C NAD27 | Geographic NAD27 | Elev: |
| ① | N: 866031.11 E: 1454687.88 | Lat: 32°02'09.34" Long: 102°05'34.64" | 2,791.8' |
| ② | N: 866917.95 E: 1455211.25 | Lat: 32°02'18.20" Long: 102°05'28.73" | 2,787.5' |
| ③ | N: 866714.71 E: 1455555.77 | Lat: 32°02'16.24" Long: 102°05'24.69" | 2,788.2' |
| ④ | N: 866172.09 E: 1455235.68 | Lat: 32°02'10.82" Long: 102°05'28.31" | 2,789.5' |

a. 6'X15' VERT. 2 PH. PRODUCTION SEPARATOR, (250 PSI)
b. 8'X20' HORIZONTAL PRODUCTION SEPARATOR (TEST), (125 PSI)
c. 10'X30' HORIZONTAL PRODUCTION SEPARATOR (BULK), (125 PSI)
d. 8'X35' HORIZONTAL ELECTRIC OIL HEATER, (125 PSI)
e. 10'X15' VAPOR RECOVERY UNIT – 4 UNITS (80 PSI)
f. 6'X15' VERTICAL SCRUBBER, (250 PSI)
g. 6'X12' DIA. EMERGENCY TANK
h. 10'X40' HORIZONTAL OIL STABILIZER, (75 PSI)
j. WATER METER
o. CHAPARRAL LACT
p. KNIGHT LACT
q. SUMP TANK
r. LAUNCHER
s. IJB
t. WELL HEADER

STATE OF TEXAS REGISTERED WILLIAM S ABRAHAM 2052 PROFESSIONAL LAND SURVEYOR

08/09/23

WILLIAM S. ABRAHAM, REGISTERED PROFESSIONAL LAND SURVEYOR TEXAS REGISTRATION NO. 2052

# EXHIBIT "G"

KNIGHT WEST PAD WELLS
SITUATED IN
T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S, ABSTRACT 667 OF THE CITY MIDLAND, MIDLAND COUNTY, TEXAS.

| REV. | DRAWING NAME |
|---|---|
| 3 | EXHIBIT "G" KNIGHT WEST PAD |

PERMIAN DEEP ROCK OIL COMPANY

ATWELL

| | | | |
|---|---|---|---|
| DRAWN | MA | DATE | 03/14/23 |
| CHECKED | LF | DATE | 03/14/23 |
| APP'D | | DATE | |
| SCALE | 1"=200' | PAGE | 1 OF 2 |

| REV# | DATE | DESC. |
|---|---|---|
| 1-JEP | 07/24/23 | CLIENT UPDATES |
| 2-JEP | 08/08/23 | CLIENT UPDATES |
| 3-JEP | 08/09/23 | CLIENT UPDATES |
| JOB NO. | | 19002229 |

N
W E
S
0' 100' 200'

LEGEND
PRODUCT LINE
PAD LINE
SURFACE HOLE LOCATION

NOTES
1. ALL BEARINGS & DISTANCES SHOWN HEREON ARE GRID BASED UPON TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM OF 1927, US SURVEY FOOT, AS DERIVED FROM AN ON THE GROUND SURVEY PERFORMED BY ATWELL, LLC ON JULY, 2023.

RECEIVED
November 14, 2023

# City Council Meeting

**Item Number:** 26

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Ron Jenkins, Oil and Gas Coordinator

**Subject:** **Motion authorizing the execution of a Subsurface Use Agreement between the City of Midland and Pioneer Natural Resources USA, Inc., regarding certain City-owned property described as the South 500 feet of Section 16, Block 37, T-2-S, W.T. Halcombe Survey, Midland County, Texas (DISTRICT:NONE) (DEVELOPMENT SERVICES)**

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**Purpose:**
Motion authorizing the execution of a Subsurface Use Agreement between the City of Midland and Pioneer Natural Resources USA, Inc., regarding certain City-owned property described as the South 500 feet of Section 16, Block 37, T-2-S, W.T. Halcombe Survey, Midland County, Texas.

**Recommended City Council Action:**
Approve

**Fiscal Impact:**
There is no cost to the City to process this application.

**Discussion:**
This is a subsurface use agreement located on City of Midland Property. Pioneer Natural Resources is requesting to cross City of Midland property to access minerals they have under lease on property located on Sections 17 and 31, Block 37, T-2-S, Midland County, Texas. The area of Section 16 is city owned solid waste property located at the landfill.

Attachments: Exhibit Subsurface Use Agreement.

Morris William Jr.

City Manager's Office

**EXECUTION VERSION**

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

# SUBSURFACE USE AGREEMENT

THE STATE OF TEXAS §
§ KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF MIDLAND §

This Subsurface Use Agreement (this "Agreement") is entered into effective as of November 14, 2023 (the "Effective Date"), by and between the City of Midland, Texas ("Grantor"), whose address is 300 N. Loraine, Midland, Texas 79701, and Pioneer Natural Resources USA, Inc., a Delaware corporation ("Operator"), whose address is P.O. Box 3178, Midland, Texas 79702. Grantor and Operator are sometimes referred to singularly as a "Party," and collectively as the "Parties."

## BACKGROUND

Grantor owns an interest in the land located in Midland County, Texas, more particularly described on the attached Exhibit A (collectively, the "Land"). Operator desires to drill horizontal wells through the Land for the production of oil and gas, said production not from the Land, but from other lands in the area (such wells, the "Wellbores"). The Parties are entering into this Agreement to provide the terms with respect to the use of the Land for such purposes.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and Operator agree as provided below:

## ARTICLE I - AGREEMENT

1.1 Grant, Limitations.

Grantor grants, transfers, and conveys unto Operator a non-exclusive easement to use and occupy the subsurface underlying the Land for the purposes of drilling no more than eight (8) Wellbores through the subsurface of the Land, for the purposes of completing the Wellbores and producing or flowing oil and/or gas from lands in the vicinity of the Land through such Wellbores. This is a grant of subsurface use only and this Agreement does not grant the right to use the surface of the ground of the Land for any purpose, including, without limitation, any oil and gas operation. This Agreement does not grant any interest in and to the oil, gas, or other minerals in, on or under the Land, nor shall this Agreement grant Operator the right to produce any of the oil, gas or other minerals from the Land. Neither this Agreement, nor the consideration provided for herein, is intended to apply to wells that Operator has drilled or drills in the future through the Land via oil and gas lease rights or any other rights under any other agreement that Operator may have covering the Land.

1.2 Term, End of Term.

(a) This Agreement will be for a term of three (3) years, and for so long thereafter as Operator produces or flows oil and/or gas from lands in the vicinity of the Land through any Wellbore with no cessation of three hundred sixty-five (365) continuous days or more. Upon the expiration of this Agreement under the immediately preceding sentence, the rights granted under this Agreement to Operator shall *ipso facto* cease and automatically terminate; provided, however, that notwithstanding any expiration or termination of this Agreement Operator's liability for performance of its obligations hereunder and Operator's indemnity and defense obligations hereunder shall survive any expiration or termination of this Agreement. Upon expiration or termination of this Agreement, Operator shall promptly give Grantor written notice of such expiration or termination and Operator shall have the right to remove all pipe, casing and other subsurface equipment as may be situated in and under the Land, and shall conduct such plugging and abandonment operations as may be required by applicable law. In addition, upon the expiration or termination hereof, Operator shall prepare and file in Midland County, Texas, a release of this Agreement and pay the required filing fees for same. Operator may at any time surrender all or any part of its rights hereunder by filing a release in the appropriate public record.

(b) The Wellbores and corresponding equipment and materials placed on or in the subsurface of the Land by Operator shall be and remain the property of Operator. Each Wellbore drilled through the subsurface of the Land by Operator under the terms of this Agreement shall be drilled through the subsurface of the Land below 1,000' subsurface.

1.3 Operator Rights and Obligations; Consideration.

(a) Operator agrees that it will comply in all its operations under this Agreement with all applicable ordinances, laws, rules and regulations of each governmental, municipal and/or regulatory authority having jurisdiction over such operations, including, without limitation, the City of Midland Oil and Gas Drilling requirements as applied under current Ordinance 8769, as codified in the City of Midland Municipal Code Section 6-1-23, as the same may be hereafter amended from time to time, if and to the extent applicable, and all applicable environmental rules and regulations. **OPERATOR AGREES TO INDEMNIFY, DEFEND, AND HOLD GRANTOR AND GRANTOR'S OFFICERS, EMPLOYEES, TENANTS, AGENTS, REPRESENTATIVES, SUCCESSORS AND ASSIGNS ("GRANTOR INDEMNITEES"), HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS, LOSSES, DAMAGES, FINES, PENALTIES, DEMANDS, CAUSES OF ACTION OR OTHER EXPENSES OF ANY KIND OR CHARACTER (INCLUDING, WITHOUT LIMITATION, ALL COSTS AND EXPENSES OF LITIGATION AND ATTORNEYS' FEES) ASSERTED AGAINST OR SUFFERED BY ANY GRANTOR INDEMNITEE BY REASON OF THE GRANT OF THE EASEMENT UNDER THIS AGREEMENT AND/OR ARISING OUT OF OPERATOR'S OPERATIONS UNDER THE LAND UNDER THIS AGREEMENT.**

(b) As additional consideration for the easement conveyed by Grantor herein, during the term of this Agreement, Operator shall pay to Grantor the amount of Ten Thousand and No/100ths Dollars ($10,000.00) per Wellbore for any Wellbore to be drilled in, under or through the Land pursuant to the terms of this Agreement, with such aggregate amount (being Eighty Thousand and No/100ths Dollars ($80,000.00)) being due and payable to Grantor within thirty (30) days after

Grantor delivers to Operator a signed and notarized original of this Agreement. Any such amount owed to Grantor that is not received by Grantor on or before the last day of such thirty (30) day period shall accrue interest at the lesser of (i) ten percent (10%) per year; or (ii) the highest rate allowed by applicable law, from the payment due date until such amount is received by Grantor. Within thirty (30) days of Grantor's written request to Operator, Operator shall furnish to Grantor wellbore plats of the Wellbores drilled in, under or through the Land together with such other location and spud date information pertaining to the Wellbores as may be reasonably requested by Grantor.

1.4 Grantor Rights and Obligations.

(a) The subsurface easement granted hereunder is granted by Grantor without warranty of title, express or implied. **OPERATOR IS FULLY FAMILIAR WITH THE LAND, ITS CONDITION AND STATE OF REPAIR FROM OPERATOR'S OWN INVESTIGATION OF SAME. OPERATOR ACKNOWLEDGES THAT GRANTOR HAS MADE NO EXPRESS WARRANTIES WITH REGARD TO THE LAND OR THE CONDITION THEREOF AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, GRANTOR HEREBY DISCLAIMS, AND OPERATOR HEREBY WAIVES THE BENEFIT OF, ANY AND ALL IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF HABITABILITY, OR FITNESS OR SUITABILITY FOR OPERATOR'S PURPOSES.** Operator has the right to discharge or redeem for Grantor, in whole or in part, any mortgage, tax or other lien relating to the Land and thereupon be subrogated to such lien if Grantor defaults on any mortgage covering the Land.

(b) Grantor will receive payment hereunder in such proportion as its undivided interest in the affected portion of the Land traversed by an individual Wellbore bears to the fee simple title of the Land.

## ARTICLE II - MISCELLANEOUS

2.1 Nature of Agreement. The terms and provisions of this Agreement shall inure to the benefit of and be binding upon Grantor and Operator and their respective heirs, successors, representatives and assigns. Grantor confirms and agrees that Grantor has been made no promise or agreement by Operator or any agent (which is not expressed herein) in executing this Agreement, that Grantor is not relying upon any statement or representation of Operator, or any agent and that Grantor's execution of this Agreement is free and voluntary. This Agreement may not be amended except by a writing signed by the Party against whom said modification or amendment is to be enforced and no Party shall be liable or bound to any other Party except as specifically set forth herein.

2.2 No Waiver of Governmental or Sovereign Immunity. By executing this Agreement Grantor is not waiving its right of governmental or sovereign immunity. Grantor is retaining its immunity from suit. Grantor is not granting consent to be sued by legislative resolution or action. **THERE IS NO WAIVER OF GOVERNMENTAL OR SOVEREIGN IMMUNITY.**

2.3 Public Purpose; Governmental Functions. The Parties acknowledge and agree that this Agreement is in the public interest and serves a public purpose. The Parties acknowledge and agree that Grantor's obligations and performance under this Agreement are governmental functions. By

entering into this Agreement, Operator waives and releases any present or future claim asserting Grantor's obligations or performance under this Agreement are not governmental functions.

2.4 Chapter 271 of Texas Local Government Code. The Parties agree that this Agreement does not constitute an agreement for providing goods or services to Grantor as described in Subchapter I of Chapter 271 of the Texas Local Government Code, and the Parties expressly covenant and agree that this Agreement shall not constitute nor be interpreted as a waiver of Grantor's governmental immunity under Subchapter I of Chapter 271 of the Texas Local Government Code. Operator acknowledges and agrees that any provision in this Agreement that restricts the use of property to a specific purpose shall not require the use of property for that specific purpose. Any such provision shall be deemed to be a covenant against noncomplying use, not a covenant to use. Operator's use of property in compliance with a restriction shall not constitute a service, and such complying use shall not operate to waive Grantor's governmental immunity.

2.5 Instruments. The rights of either Party hereunder may be assigned, in whole or in part, and the provisions hereof shall extend to the respective heirs, successors, representatives and assigns of the Parties. This Agreement does not waive or diminish any rights conveyed to Operator by virtue of any oil and gas lease, or other instrument affecting the Land. This Agreement shall be governed by and construed in accordance with the laws of the State of Texas without reference to the conflict of law principles thereof. Without limiting paragraphs 2.2, 2.3 or 2.4 of this Agreement, (i) should any dispute arise hereunder the Parties stipulate that venue will lie in Midland County, Texas, and (ii) as to any action arising hereunder or related hereto, the Parties agree to and do hereby irrevocably waive any and all right to a trial by jury to the fullest extent permitted by law. This Agreement may be signed in multiple counterparts, and all such counterparts shall be deemed as originals and binding upon the Party executing and their respective heirs, representatives, successors and assigns. For recording, multiple signature pages may be compiled into a single document.

2.6 Attorneys' Fees. Operator shall reimburse Grantor for Grantor's attorneys' fees incurred in connection with the preparation and negotiation of this Agreement, such fees in connection with the preparation and negotiation of this Agreement not to exceed $5,000.00. The invoice for such attorneys' fees shall be provided to Operator within thirty (30) days of execution of this Agreement, and paid by Operator within sixty (60) days of execution.

2.7 Memorandum. In lieu of recording this Agreement, Grantor agrees to execute, and Operator shall file in the Official Public Records of the applicable county, a Memorandum of this Agreement substantially in the form of Exhibit B attached hereto (the "Memorandum"). Except for the Memorandum, this Agreement shall not be filed in any public records without the prior written consent of Grantor.

[Signature Pages Follow]

**GRANTOR**:
CITY OF MIDLAND, TEXAS

By:_____
Name: Tommy Gonzalez
Title: City Manager

THE STATE OF TEXAS §
§
COUNTY OF MIDLAND §

This instrument was acknowledged before me this ___ day of _____, 20__, by Tommy Gonzalez, City Manager of the City of Midland, Texas, a home rule municipal corporation, on behalf of said entity.

_____
Notary Public, State of Texas

**OPERATOR**:
PIONEER NATURAL RESOURCES USA, INC.

By: _____
Name: Daniel M. Pender
Title: Surface Land and Business Development Director

THE STATE OF TEXAS §
§
COUNTY OF MIDLAND §

This instrument was acknowledged before me this ____ day of _____, 20__, by DANIEL M. PENDER, Surface Land and Business Development Director of PIONEER NATURAL RESOURCES USA, INC., for and on behalf of said corporation.

_____
Notary Public, State of Texas

**EXHIBIT A**

to

Subsurface Use Agreement between the City of Midland, Texas, as Grantor, and Pioneer Natural Resources USA, Inc., as Operator

**The Land**

The South 500 feet of Section 16, Block 37, T-2-S, W.T. Halcombe Survey, Midland County, Texas.

**EXHIBIT B**

to

Subsurface Use Agreement between the City of Midland, Texas, as Grantor, and Pioneer Natural Resources USA, Inc., as Operator

**NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.**

STATE OF TEXAS §
§
COUNTY OF MIDLAND §

**MEMORANDUM OF SUBSURFACE USE AGREEMENT**

This Memorandum of Subsurface Use Agreement (this "Memorandum") is made effective as of the 14th day of November, 2023 (the "Effective Date"), by and between the City of Midland, Texas ("Grantor"), whose address is 300 N. Loraine, Midland, Texas 79701, and Pioneer Natural Resources USA, Inc., a Delaware corporation ("Operator"), whose address is P.O. Box 3178, Midland, Texas 79702. Grantor and Operator are sometimes referred to singularly as a "Party," and collectively as the "Parties."

1. Land. This Memorandum pertains to certain land in which Grantor owns an interest which is more fully described in the legal description in Exhibit A attached hereto and incorporated herein by reference (the "Land").

2. Grant of Subsurface Easement. The Parties entered into that certain Subsurface Use Agreement dated effective as of the Effective Date (the "Agreement"), under which Grantor granted, transferred, and conveyed unto Operator a non-exclusive easement to use and occupy the subsurface underlying the Land for the purposes of drilling no more than eight (8) horizontal wells through the Land for the production of oil and gas, said production not from the Land, but from other lands in the area through the subsurface of the Land, for the purposes of completing the Wellbores and producing or flowing oil and/or gas from lands in the vicinity of the Land through such Wellbores. The Agreement sets forth the consideration paid or to be paid by Operator to Grantor and the terms and conditions under which Grantor granted and conveyed unto Operator such subsurface easement under the Land.

3. Modification. This Memorandum does not alter, amend or modify the terms and conditions of the Agreement, but is executed solely for the purpose of giving notice of the existence of the Agreement and Operator's rights with respect to the Land. The Agreement is incorporated by reference for all purposes to the same extent and with the same effect as if set forth herein in full.

4. Counterparts. This Memorandum may be executed in multiple counterparts, each of which shall be deemed an original instrument, but all of which together shall constitute one and the same instrument.

[*Remainder of Page Intentionally Left Blank*]

[*Signature and Acknowledgement Pages Follow*]

IN WITNESS WHEREOF, Grantor and Operator have executed this Memorandum as of the dates of their respective acknowledgements below, to be effective as of the Effective Date.

**GRANTOR**:
CITY OF MIDLAND, TEXAS

By: [DO NOT SIGN – EXHIBIT ONLY]
Name: Tommy Gonzalez
Title: City Manager

THE STATE OF TEXAS §
§
COUNTY OF MIDLAND §

This instrument was acknowledged before me this ___ day of _____, 20__, by _____, _____ of the City of Midland, Texas, a home rule municipal corporation, on behalf of said entity.

[DO NOT SIGN – EXHIBIT ONLY]
Notary Public, State of Texas

**OPERATOR**:
PIONEER NATURAL RESOURCES USA, INC.

By: [DO NOT SIGN – EXHIBIT ONLY]
Name: Daniel M. Pender
Title: Surface Land and Business Development Director

THE STATE OF TEXAS §
§
COUNTY OF MIDLAND §

This instrument was acknowledged before me this ____ day of _____, 20__, by DANIEL M. PENDER, Surface Land and Business Development Director of PIONEER NATURAL RESOURCES USA, INC., for and on behalf of said corporation.

[DO NOT SIGN – EXHIBIT ONLY]
Notary Public, State of Texas

**EXHIBIT A**

to

Memorandum of Subsurface Use Agreement between the City of Midland, Texas, as Grantor, and Pioneer Natural Resources USA, Inc., as Operator

**The Land**

The South 500 feet of Section 16, Block 37, T-2-S, W.T. Halcombe Survey, Midland County, Texas.

# City Council Meeting

**Item Number:** 27

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Gabe McClelland, Director

**Subject:** MOTION AUTHORIZING THE CITY MANAGER OR THE CITY MANAGER'S DESIGNEE TO ADVERTISE A REQUEST FOR PROPOSALS FOR DOWNTOWN PARKING MANAGEMENT SERVICES TO INCLUDE PAY-BY-MOBILE APPLICATION PARKING AND INCIDENTAL SERVICES FOR ON-STREET PARKING, SURFACE PARKING LOTS, AND PUBLIC PARKING SPACES LOCATED AT PARKING GARAGES, AND TO NEGOTIATE AN AGREEMENT FOR SAID SERVICES; PROVIDED HOWEVER, THAT SAID AGREEMENT SHALL NOT BECOME EFFECTIVE UNTIL APPROVED BY THE CITY COUNCIL (DISTRICT 2) (ENGINEERING SERVICES)

---

**Purpose:**

The City is seeking proposals from experienced and qualified parking management firms (the "Proposers") to provide comprehensive parking management services. These services should include the operation and oversight of downtown parking facilities, encompassing up to 2,000 on-street parking spaces, and up to 750 parking garages, integrated with a robust mobile application for payment processing and enhanced security measures.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

To be determined based on proposals received.

**Discussion:**

The City is seeking proposals from experienced and qualified parking management firms (the "Proposers") to provide comprehensive parking management services. These services should

include the operation and oversight of downtown parking facilities, encompassing up to 2,000 on-street parking spaces, and up to 750 parking garages, integrated with a robust mobile application for payment processing and enhanced security measures.

Scope of agreement should include the following:

Parking Management: Effective management and operation of all designated parking areas, including staffing, maintenance, and customer service.
Payment Processing: Provision of a seamless payment system, including mobile payment options, permit management, and enforcement.
Security: Implementation and monitoring of security protocols to ensure the safety of the parking facilities and its users.
Mobile Application Development and Maintenance: Creation and upkeep of a user-friendly mobile application that facilitates real-time parking information, space reservation, payment processing, and customer assistance.

Morris Williams Jr.

City Manager's Office

# Request for Proposals

## RFP 24001410

## for

DOWNTOWN PARKING MANAGEMENT AND MOBILE APPLICATION SERVICES

***Proposals for this requirement will be accepted until 2:00 P.M. on December 6, 2023***

**Proposals May be Mailed or Delivered to:**

**City Secretary**
**City of Midland**
**Suite 330**
**P.O. BOX 1152**
**Midland, Texas 79702-1153**
**(300 N. Loraine, Suite 330 Midland, TX 79701)**

## No Late Proposals Will Be Accepted

**NOTICE TO PROPOSERS:**

1. **IMPORTANT NOTICE** – IF THE CONTRACT DOCUMENTS REQUIRE WORKER'S COMPENSATION INSURANCE, PROPOSER/CONTRACTOR MUST CARRY WORKER'S COMPENSATION INSURANCE TO BE ELIGIBLE FOR THIS CONTRACT. IF YOU CANNOT PROVIDE WORKER'S COMPENSATION INSURANCE AS REQUIRED BY STATE OF TEXAS STATUTE WE RESPECTFULLY REQUEST THAT YOU "NO BID" THIS WORK

2. COMPLIANCE. – COMPANY AGREES THAT IT SHALL COMPLY WITH TEXAS GOVERNMENT CODE SECTION 2252.908, *ET SEQ.*, AS AMENDED. COMPANY AGREES THAT IT SHALL COMPLY WITH TEXAS LOCAL GOVERNMENT CODE SECTION 176.006, *ET SEQ.*, AS AMENDED.

**3.** **PUBLIC INFORMATION.** TO THE EXTENT THAT PROPOSER IS SUBMITTING A PROPOSAL FOR A CONTRACT DESCRIBED BY SECTION 552.371 OF THE TEXAS GOVERNMENT CODE, PROPOSER AGREES AS FOLLOWS IN ACCORDANCE WITH SECTION 552.372(B) OF THE TEXAS GOVERNMENT CODE: THE REQUIREMENTS OF SUBCHAPTER J, CHAPTER 552, GOVERNMENT CODE, MAY APPLY TO THIS PROPOSAL, AND THE CONTRACTOR OR VENDOR AGREES THAT THE CONTRACT CAN BE TERMINATED IF THE CONTRACTOR OR VENDOR KNOWINGLY OR INTENTIONALLY FAILS TO COMPLY WITH A REQUIREMENT OF THAT SUBCHAPTER.

# SCHEDULE OF EVENTS

RFP 24001410

For

Project

| Event | Date* |
|---|---|
| RFP Released | November 16, 2023 |
| Cutoff Date for inquiries and clarification | December 1, 2023 |
| Proposal Due Date | December 6, 2023 |
| Notification of Vendor Interviews / Product Demonstrations | To Be Determined |
| Intended Date for Contract Award | January 13, 2024 |

*These dates are our intended schedule; however, they may be changed as necessary without further notice.

NOTE:

From the issuance date of this RFP until a Contractor(s) is selected, all verbal communication is not binding. The City will only be bound by written comments submitted by the Purchasing Office.

# SPECIAL TERMS AND CONDITIONS

## Proposal Requirements /Terms

1. Unless otherwise called for, the number of copies specified in the RFP, shall be submitted typewritten or printed in ink. Many Requests for Proposals are in a word format that can be completed on your computer and will be noted on the cover page if available.

2. Each proposal should be placed in a separate envelope completely and properly identified with the RFP number, due time and date. Proposal must be time stamped at the appointed receipt location before the hour and date specified for the proposal receipt. Responsibility for having the proposal properly marked and to the opening location by the specified date and time is solely the offeror's. All copies of the proposal may be delivered in the same box/package.

3. Any Proposal may be withdrawn in writing prior to the date and time set for receipt of proposals. Any proposals not so withdrawn shall constitute an irrevocable offer, for a minimum period as stated in the RFP following the final acceptance date, to provide the commodity or service set forth in the attached specifications, or until a selection has been made by the City.

4. Late proposals will not be accepted under any circumstances.

5. Proposal should give full firm name and address of Offeror. Failure to manually sign the proposal will disqualify it. The person signing the proposal should show title or authority to bind his/her firm in contract. Insert your Federal Employer's Identification Number _____ or Sole owner should enter SSN _____-____-_____.

6. Purchases made for City use are exempt from State Sales Tax and Federal Excise Tax. Do not include tax in your proposal. Tax exemption certificates will be furnished by the City upon request.

7. Telephone proposals are not acceptable when in response to an RFP.

## Conditions

The City of Midland is requesting proposals with the intent of awarding a contract for the requirement contained in this RFP. However, the City is not obligated to award a contract on this solicitation and reserves the right to reject any and all proposals and award the proposal to best serve the interests of the City.

1. Offerors electing to respond to this RFP are responsible for all costs of proposal preparation. The City is not liable for any costs incurred by a offeror in response to this RFP.

2. No public disclosures or news releases pertaining to this RFP shall be made without prior written approval from purchasing.

3. In case of a tie between two or more offerors, the award will be made in accordance with preferences as outlined by statute.

4. The Offeror agrees to protect the City from claims involving infringement of patents or copyrights.

5. The Offeror hereby assigns to Purchaser, any and all claims for overcharges associated with any contract resulting from this RFP which arise under the antitrust laws of the United States 15 U.S.C.A. Section 1, et seq. 1973 and which arise under the antitrust laws of the State of Texas, Texas Business and Commercial Code Ann. Sec. 15.01, et seq. (1967).

6. No substitutions or cancellation permitted without the written approval of the City Purchasing Agent. Deliveries made pursuant to a resulting contract shall be made during normal working hours only, unless approval for late delivery has been obtained.

7. Contractor shall submit two copies of an itemized invoice to Accounts Payable, The City of Midland, Texas, P.O. Box 1152, Midland Texas 79702. Each copy of the invoice shall reference the P.O. and the RFP numbers.

8. In the event of a conflict between the standard proposal requirements and conditions and the attached detail specification, the detail specifications shall govern.

9. Governing Law & Venue: This agreement shall be governed by and construed in accordance with the laws of the State of Texas. Venue for any disputes or lawsuits arising from the performance of this contract shall be exclusively in Midland County, Texas. The parties agree that all performance under this contract shall take place in Midland, County, Texas. The Contractor and City agree that all payments made under this contract shall take place in Midland County, Texas.

10. This obligation and undertakings of each of the parties to this contract shall be deemed to have been performed in Midland County, Texas.

# 1. GENERAL INFORMATION

## 1.1. INTRODUCTION

The City of Midland (hereinafter referred to as "the City") is pleased to invite you to submit a proposal for DOWNTOWN PARKING MANAGEMENT AND MOBILE APPLICATION SERVICES as specified herein. Proposals submitted in response to the specifications contained herein shall comply with the following instructions and procedures.

The City is seeking proposals from experienced and qualified parking management firms (the "Proposers") to provide comprehensive parking management services. These services should include the operation, oversight, and enforcement of downtown parking facilities, encompassing up to 2,000 on-street parking spaces, and up to 750 parking garage spaces, integrated with a robust mobile application for payment processing and enhanced security measures.

This Request for Proposal (RFP) is issued in accordance with City of Midland Policy, the RFP Manual and the statutes of the State of Texas. The RFP process is a procurement option allowing the award to be evaluated based on stated criteria. The RFP states the relative importance of all criteria. No other criteria, other than as outlined in the Request for Proposal, will be used.

## 1.2. INITIAL EVALUATION

Upon receipt, the proposal information will be disclosed only to persons participating in the evaluation or contracting process until the proposal has been reviewed and all marked trade secrets have been removed (see “Trade Secrets and Other Withheld Information” statement below). After this review, all remaining proposal materials will be available under the open records act. The proposals will be initially evaluated by the committee as being “responsive” or “non-responsive”.

## 1.3. DISCUSSION/NEGOTIATION

Although proposals may be accepted and a contract awarded without discussion, the City may initiate discussions should clarification or negotiation be necessary. Offerors should be prepared to send qualified personnel to Midland, Texas to discuss technical and contractual aspects of the proposal.

## 1.4. BEST AND FINAL OFFER

The "Best and Final Offer" is an option available to the City under the RFP process allowing one or more offerors to submit a best and final offer. Offerors may be contacted, asking that they submit their best and final offer, which must include the discussed and/or negotiated changes.

## 1.5. AWARD

**1.5.1. If the Contract is awarded, it will be awarded to either the lowest responsible bidder, or to the bidder who provides goods or services at the best value for the City of Midland. In determining the best value for the City of Midland, the City of Midland may consider the criteria enumerated in Section 252.043 of the Texas Local Government Code.**

## 1.6. TRADE SECRETS

**1.6.1. All information received in response to this RFP will be available to the public except for:**

1.6.1.1. trade secrets meeting the requirements of Texas Government Code Title 5, Chapter 552, Subchapter C, § 552.110; and

1.6.1.2. matters involving individual safety as determined by the department.

**1.6.2. In order for an offeror to claim trade secret material, the following conditions must be met. Information to be withheld must be clearly marked and separated from the rest of the proposal.**

1.6.2.1. The proposal may not contain trade secret matter in the cost or price.

1.6.2.2. An affidavit from the offeror's legal counsel attesting to and explaining the validity of the trade secret claim must be attached to each proposal containing trade secrets. In addition, offerors submitting a proposal containing trade secrets must be prepared to pay all legal costs and fees associated with defending the claim for trade secret protection in the event of an open records request from another party.

**1.6.3. Documents not meeting all of the requirements of (1) and (2) will be available for public inspection, including copyrighted materials.**

## 1.7. LATE PROPOSALS

Proposals received after the time specified for receipt of proposals will be destroyed or returned at the offeror's expense after consultation with the offeror. There are no exceptions to this deadline.

## 1.8. PREPARING A RESPONSE

This RFP contains the instructions governing the proposals to be submitted and a description of the mandatory requirements. To be eligible for consideration, an offeror must meet the intent of all mandatory requirements. Compliance with the intent of a mandatory requirement will be determined by the Purchasing Office. When imperative language (shall, will, must) appears in any section of the RFP, it is considered to be mandatory.

**1.8.1. Offerors shall promptly notify the City of any ambiguity, inconsistency or error, which they may discover upon examination of this RFP.**

## 1.9. CLARIFICATION/ INTERPRETATION

Offerors requiring clarification or interpretation of any section or sections contained in this RFP shall make a written request to the City Purchasing Agent by the deadline described in the Schedule of Events. All written correspondence must be addressed to:

The City Of Midland
Office of the Purchasing Agent OR
P.O. Box 1152
Midland, TX 79702

FAX: (432) 685-0523

e-mail: purchasing@midlandtexas.gov

## 1.10. FORMAT FOR INQUIRIES:

Each offeror submitting written questions must clearly address each question by reference to a specific section, page and item of this RFP. An official written answer will be provided to all questions received. Verbal responses shall not be considered binding.

## 1.11. INTERPRETATION:

Any interpretation, correction or change of this RFP will be made by written Addendum. Interpretations, corrections or changes of this RFP made in any other manner will not be binding and offerors shall not rely upon such interpretations, corrections or changes.

The City of Midland Purchasing Office will issue any necessary Addenda.

A point-by-point response to all numbered sections, subsections, paragraphs, subparagraphs and appendices must be submitted by each offeror in order to be considered for selection.

## 1.12. PROPOSAL ORGANIZATION AND SUBMISSION

Offerors must organize proposals into sections following the format of this RFP, with tabs separating each section. If no exception, explanation, or clarification is required in the offeror's response to a specific subsection, the offeror shall indicate so in the point-by-point response with the following:

"(Offeror's Name)", understands and will comply.

## 1.13. OFFER PRICING

Offerors must respond to this RFP by utilizing the RFP Cost Summary. The cost summary will be used as the primary representation of each offeror's cost, and will be used extensively during proposal evaluations. Additional information should be included as necessary to explain in detail the offeror's cost.

Proposals should be complete to the degree that all of the information sought by this RFP is supplied in the order requested.

## 1.14. ALTERNATE PROPOSALS

Offerors may submit, at their option, multiple proposals, in which case each proposal shall be evaluated as a separate document.

## 1.15. SUBMITTING A SEALED PROPOSAL

### 1.15.1. Number of copies and Location:

1.15.1.1. Offerors must submit one original, 2 hard copies and one (1) soft copy (PDF or Word) to the City Secretary. Sealed Proposals must be received by the date before the time stated on the face of the Request for Proposal Cover Page, local time. Sealed Proposals received after this time will not be accepted for consideration. Facsimile copies are not acceptable.

1.15.1.2. Please be sure to label the outermost package of the RFP whether it is an envelope, box or overnight package with the RFP number, RFP description and closing date so that it is visible when received by the City.

### 1.15.2. Each Offeror who submits a proposal represents that:

1.15.2.1. The proposal is based upon an understanding of the specifications and requirements described in this RFP.

1.15.2.2. Costs for developing and delivering responses to this RFP and any subsequent presentations of the proposal as requested by the City are entirely the responsibility of the offeror. The City is not liable for any expense incurred by the offerors in the preparation and presentation of their proposals.

1.15.2.3. All materials submitted in response to this RFP become the property of the City and are to be appended to any formal documentation, which would further define or expand any contractual relationship between the City and offeror resulting from this RFP process.

**1.15.3. The proposals must be signed in ink by an individual authorized to legally bind the business submitting the proposal.**

**1.15.4. A proposal may not be modified, withdrawn or canceled by the offeror for a 120-day period following the deadline for proposal submission,** or receipt of best and final offer, if required, as defined in the Schedule of Events, and offeror so agrees in submitting the proposal.

## 1.16. RIGHTS RESERVED

While the City has every intention to award a contract as a result of this RFP, issuance of the RFP in no way constitutes a commitment by the City of Midland to award a contract. Upon a determination, such actions would be in its best interests, the City in its sole discretion reserves

the right to:

A) waive any formality;

b) cancel or terminate this RFP;

c) reject any or all proposals received in response to this document;

d) waive any undesirable, inconsequential, or inconsistent provisions of this document, which would not have significant impact on any proposal; not award, or if awarded, terminate any contract if the City determines adequate City funds are not available.

## 1.17. OFFEROR INTERVIEW / PRODUCT DEMONSTRATION

After receipt of all proposals and before the determination of the award, respondents may be required to make an oral presentation and product demonstration in Midland, Texas to clarify their response or to further define their offer. Oral presentations and product demonstrations, if requested, shall be at the offeror's expense.

## 1.18. SUBCONTRACTING

**1.18.1. The successful offeror will be the Prime Contractor and shall be responsible,** in total, for all work of subcontractors. All subcontractors must be listed in the proposal. The City reserves the right to approve all subcontractors.

**1.18.2. The contractor shall be responsible to the City for the acts and omissions of all subcontractors or agents** and of persons directly or indirectly employed by such subcontractors, and for the acts and omissions of persons employed directly by the contractor. Further, nothing contained within this document or any contract documents created as a result of any contract awards derived from this RFP shall create any contractual relationships between any subcontractor and the City.

## 1.19. INSURANCE REQUIREMENTS

See Contract or Agreement

## 1.20. CONTRACTOR'S RESPONSIBILITIES

The successful offeror shall keep informed of, and shall comply with all applicable laws, ordinances, rules, regulations and orders of the City, County, State, Federal or public bodies having jurisdiction affecting any work to be done to provide the services required. The offeror shall provide all necessary safeguards for safety and protection, as set forth by the United States Department of Labor, Occupational Safety and Health Administration.

## 1.21. OFFEROR COMPETITION

The City encourages free and open competition among offerors. Whenever possible, specifications, proposal requests and conditions are designed to accomplish this objective, consistent with the necessity to satisfy the City's need to procure technically sound, cost-effective services.

The offeror's signature on a proposal in response to this RFP guarantees that the prices quoted have been established without collusion of other eligible offerors and without effort to preclude the City of Midland from obtaining the best possible price.

## 1.22. CONTRACT PROVISIONS AND TERMS

### 1.22.1. Contract Execution

1.22.1.1. The City will execute a contract with the successful offeror(s). The City requires that the RFP and the terms and conditions attached to it, the offeror's response, the best and final offer (if required), and any formal addenda to the RFP be included as part of any contract documents.

### 1.22.2. Terms and Conditions

Contract that will be executed by the successful offeror and the City is found in Appendix A.

### 1.22.3. Exceptions to Contract Terms & Conditions

Offerors should notify the City of any terms within the sample contract that either precludes them from responding to the RFP or add unnecessary cost.

**1.22.4. The initial contract(s) term** is for a period of one (1) year. Renewals of the contract may be made at one (1) year intervals, not to exceed a total of five (5) years, at the City's option.

### 1.22.5. Contract Extension

The offeror agrees that, through the term of the initial contract and any agreed-upon extension, the City will be entitled to any price reductions at least equal to any lower prices made available to any other customer of comparable volume.

### 1.22.6. Escalation

Annual pricing adjustments to contract extensions following the initial contract term, if applicable, shall not exceed seventy-five percent (75%) of the rate of increase in the cost of living as reflected in the Federal Bureau of Labor Statistics, Consumer Price Index (CPI) for all Urban Consumers (1982-84=100; through November 1991 = 137.8) or any other index which may be substituted in the future. The CPI for the latest twelve (12) month period of the contract will be the CPI base on which later adjustments are computed. Each time an adjustment is made, the earlier CPI base will be replaced by the adjusted CPI base. The percentage of adjustment to contract prices shall in no event exceed the percentage change in the index.

# 2. PROPOSAL WAIVERS:

**2.1. WAIVER OF ATTORNEY FEES: BY SUBMITTING THIS PROPOSAL, OFFEROR AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST CITY REGARDING THE AWARD OR ATTORNEY'S FEES, WHICH ARE IN ANY WAY RELATED TO THIS PROPOSAL, OR THE CONSTRUCTION, INTERPRETATION OR BREACH OF THIS PROPOSAL. OFFEREOR SPECIFICALLY AGREES THAT IF OFFEROR BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS PROPOSAL, THE CONSTRUCTION, INTERPRETATION, VALIDITY OR BREACH OF THIS PROPOSAL, INCLUDING, BUT NOT LIMITED TO, ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, OFFEROR AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY'S FEES TO WHICH OFFEROR MIGHT OTHERWISE BE ENTITLED.**

**2.2. OFFEROR AGREES THAT THIS IS THE VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY-EXISTING KNOWN RIGHT. OFFEROR ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THIS PROPOSAL. OFFEROR FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN CITY AND OFFEROR. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OR GOVERNMENTAL IMMUNITY AND SHALL SURVIVE THE TERMINATION OF THE CONTRACT.**

**2.3. OFFEROR IS RELYING ON ITS OWN JUDGMENT. OFFEROR HAD THE OPPORTUNITY TO DISCUSS THESE PROPOSAL DOCUMENTS WITH**

**COMPETENT LEGAL COUNSEL PRIOR TO SUBMISSION OF THE PROPOSAL OR EXECUTION OF THE CONTRACT.**

**2.4. <u>WAIVER:</u>**

**2.5. BY SUBMITTING A PROPOSAL, THE OFFEROR AGREES TO WAIVE AND DOES HEREBY VOLUNTARILY AND INTENTIONALLY WAIVE, ABANDON AND RELINQUISH ANY CLAIM THE OFFEROR HAS OR MAY HAVE IN THE FUTURE AGAINST THE CITY OF MIDLAND, TEXAS, AND THE CITY'S EMPLOYEES, AGENTS AND OFFICERS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE FOLLOWING:**

**2.5.1. THE ADMINISTRATION, EVALUATION OR RECOMMENDATION OF ANY PROPOSAL;**

**2.5.2. WAIVER OR DELETION OF ANY OF THE REQUIREMENTS UNDER THE PROPOSAL DOCUMENTS OR THE CONTRACT DOCUMENTS;**

**2.5.3. ACCEPTANCE OR REJECTION OF ANY PROPOSALS; OR**

**2.5.4. AWARD OF THE CONTRACT.**

**2.6. BY SUBMITTING A PROPOSAL, THE OFFEROR ACKNOWLEDGES THAT THE OFFEROR UNDERSTANDS ALL OF THE TERMS OF THE PROPOSAL DOCUMENTS AND CONSENTS TO THE PROPOSAL PROCESS AND THE POSSIBILITY OF A NEGATIVE ASSESSMENT. BY SUBMITTING A PROPOSAL, THE OFFEROR ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN THE OFFEROR AND THE CITY OF MIDLAND, TEXAS. THE OFFEROR AGREES THAT THIS IS THE INTENTIONAL RELINQUISHMENT OF A PRESENTLY EXISTING KNOWN RIGHT. BY SIGNING THE PROPOSAL AND/OR BELOW, YOUR COMPANY AGREES TO THE ABOVE WAIVER(S).**

**2.7. BY SIGNING THE EXECUTION OF OFFER, YOUR COMPANY AGREES TO THE ABOVE WAIVER(S). IF THIS FORM IS NOT SIGNED AND INCLUDED WITH YOUR PROPOSAL DOCUMENTS YOUR PROPOSAL WILL BE CONSIDERED NON-RESPONSIVE AND WILL BE REJECTED.**

# 3. SCOPE OF PROJECT

3.1. **Parking Management:** Effective management and operation of all designated parking areas, including staffing, maintenance, and customer service.

3.2. **Payment Processing:** Provision of a seamless payment system, including mobile payment options, permit management, and enforcement.

3.3. **Security:** Implementation and monitoring of security protocols to ensure the safety of the parking facilities and its users.

3.4. **Mobile Application Development and Maintenance:** Creation and upkeep of a user-friendly mobile application that facilitates real-time parking information, space reservation, payment processing, and customer assistance.

# 4. REQUIREMENTS

**NOTE:** Where the term "required Field" appears in the requirements, the intent is that the user may not leave that field blank.

**PROPOSAL SUBMISSION**

Proposers must submit the following documents:

- **Technical Proposal:** Detailed approach to managing the City's parking facilities, including staffing plans, maintenance schedules, technology integration, and customer service strategies.
- **Mobile Application Proposal:** Comprehensive plan for the mobile application's features, functionality, security, user interface, and integration with existing City systems.
- **Management Fee Proposal:** Clear structure of the management fee, including detailed cost proposals for all services rendered.

**MINIMUM QUALIFICATIONS**
To be considered, proposers must demonstrate:

- Extensive experience in urban parking management, including the use of mobile applications and parking enforcement.
- A strong track record of implementing technology solutions for parking systems.
- Financial stability and capability to manage large-scale parking operations.
- Compliance with all applicable laws, ordinances, and regulations.

# 5. NARRATIVE

This RFP is a comprehensive solicitation designed to attract firms with the capability to manage complex parking operations and deliver a high-quality mobile application. It should be reviewed and approved by legal counsel to ensure compliance with procurement laws and regulations.

# 6. VENDOR QUALIFICATIONS

Vendor must satisfy the following Minimum Qualifications:

1. At least ten years' experience in the US providing parking and mobility application solutions including marketing solutions for mobile application and parking enforcement.
2. A record of comparable active municipal contracts.
3. A record that includes a proven history of increased mobile adoption rates through effective marketing and provide specific examples of successful strategies and deployment.
4. Must provide at least three current references for active mobile parking operations including marketing and enforcement.

## 6.1. INFORMATION VERIFICATION

The City may make such investigations as deemed necessary to determine the ability of the offeror to supply the products and perform the services specified.

## 6.2. RIGHT TO REJECT

The City reserves the right to reject any proposal if the evidence submitted by, or investigation of, the offeror fails to satisfy the City that offeror is properly qualified to carry out the obligations of the contract.

## 6.3. VENDOR CAPABILITIES

In determining the capabilities of an offeror to perform the services specified herein, the

following informational requirements must be met by the offeror and will be weighed by the City. (Note: Each item must be thoroughly addressed. Taking exception to any requirements listed in this Section may disqualify the proposal):

### 6.3.1. References

6.3.1.1. Offeror shall provide a minimum of three (3) references that are using services of the type proposed in this RFP. The references should fall within the categories identified below. At a minimum, the offeror shall provide the company name, the location where the services were provided, contact person(s), customer telephone number, a complete description of the service type, and dates the services were provided. The City reserves the right to use any information or additional references deemed necessary to establish the ability of the offerors to perform the conditions of the contract. Negative references may be grounds for proposal disqualification.

6.3.1.2. These references should include City government and universities where the offeror, preferably within the last five (5) years, has successfully completed manage complex parking operations and deliver a high-quality mobile application.

### 6.3.2. Vendor Stability

6.3.2.1. Offerors shall demonstrate their financial stability to supply, install and support the services specified.

6.3.2.2. Provide financial statements, preferably audited, for the two (2) consecutive years immediately preceding the issuance of this RFP.

6.3.2.3. Provide copies of any quarterly financial statements that have been prepared since the end of the period reported by your most recent annual report.

6.3.2.4. Offerors shall specify how long the company submitting the proposal has been in business (doing similar projects) _____.

# 7. EVALUATION PROCESS

## 7.1. EVALUATION PROCEDURE

### 7.1.1. Committee Actions

7.1.1.1. The evaluation committee will separate proposals into “responsive” and “non-responsive” proposals. Non-responsive proposals will be eliminated from further consideration.

7.1.1.2. The evaluation committee will evaluate the remaining proposals and determine whether to award the contract to the best proposal or to seek a best and final offer before awarding a contract. Selection and award will be based on the offeror’s proposal and other items outlined in this RFP.

7.1.1.3. Responses must be complete and address all the criteria listed. Information or materials presented by offerors outside the formal response or subsequent “best and final offer,” if requested, will not be considered and will have no bearing on any award.

## 7.2. EVALUATION CRITERIA

The evaluation committee will review and evaluate the offers according to the following criteria:

7.2.1. **Qualifications and Experience:** Firm's history, experience, and success in similar projects (35%).

7.2.2. **Approach and Methodology:** Effectiveness of the proposed parking management and mobile application plans (35%).

7.2.3. **Cost Proposal:** Reasonableness and competitiveness of the proposed costs and revenue generated (10%).

7.2.4. **References:** Strength of client references and past performance on similar projects (20%).

# 8. PROPOSAL CONTENTS

The following items constitute the RFP submittal in response to the request herein:

## 8.1. THE RFP

## 8.2. THE COST SUMMARY OR PROPOSAL FORM

## 8.3. REQUESTED ATTACHMENTS

### 8.3.1. References

### 8.3.2. Resumes

### 8.3.3. Business Plan

### 8.3.4. Financial Information

### 8.3.5. Signed Execution of Offer

# 9. TEXAS PUBLIC INFORMATION ACT

Notwithstanding any other provisions, this request for proposals, along with any associated contract, is subject to the Texas Public Information Act.

# EXECUTION OF OFFER

Date:

In compliance with this RFP, and subject to all the conditions herein, the undersigned offers and agrees to furnish any or all commodities or services at the prices quoted.

By executing this offer, Offeror affirms that he/she has not given, offered to give, nor intends to give at anytime hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted offer. Failure to sign the offer, or signing it with a false statement, shall void the submitted offer or any resulting contracts, and the Offeror shall be removed from all proposal lists.

By the signature hereon affixed, the Offeror hereby certifies that neither the Offeror or the firm, corporation, or institution represented by the Offeror or anyone acting for such firm, corporation, or institution has violate the antitrust laws of this State, codified in Section 15.01, et seq., Texas Business and Commerce Code, or the Federal antitrust laws, nor communicated directly or indirectly the offer being made to any competitor or any other person in such line of business. By signing this offer, Offeror certifies that if a Texas address is shown as the address of the Offeror, Offeror qualifies as a Texas Resident Offeror as defined in Rule 1 TAC 113.8.

This offer consists of pages number 1 through _____.

Offeror/ COMPANY: _____

SIGNATURE (INK): _____

NAME: (TYPED/PRINTED) _____

TITLE: _____

STREET: _____

CITY/STATE/ZIP: _____

TELEPHONE: _____ FAX: _____

E-MAIL ADDRESS: _____

Contractor's Name

# PROPOSAL FORM
# RFP # 24001410

To: Purchasing Manager
City of Midland
Midland, Texas

Gentlemen: The undersigned bidder, having examined the request for proposal and contract documents, the location of the proposed work and being fully advised as to the extent and character of the work proposes to furnish all materials, equipment and to perform all labor and work necessary for the complete work described by and in accordance with the attached request for proposal and contract for the sum of:

Total Proposal:

| **Period** | | | | |
|---|---|---|---|---|
| Year 1 | $ _____ | per month | x12 | $ _____ |
| Year 2 | $ _____ | per month | x12 | $ _____ |
| Year 3 | $ _____ | per month | x12 | $ _____ |
| Year 4 | $ _____ | per month | x12 | $ _____ |
| Year 5 | $ _____ | per month | x12 | $ _____ |
| Year 6 | $ _____ | per month | x12 | $ _____ |

| **Revenue** | | | | |
|---|---|---|---|---|
| Year 1 | $ _____ | per month | x12 | $ _____ |
| Year 2 | $ _____ | per month | x12 | $ _____ |
| Year 3 | $ _____ | per month | x12 | $ _____ |
| Year 4 | $ _____ | per month | x12 | $ _____ |
| Year 5 | $ _____ | per month | x12 | $ _____ |
| Year 6 | $ _____ | per month | x12 | $ _____ |
| | | | Total | $ _____ |

The undersigned bidder hereby declares that he has visited the site of the work and has carefully examined the Contract Documents pertaining to the work covered by the above bid and he further agrees to commence work within ten (10) days after the date of written notice to do so and to substantially complete same within 120 calendar days.

**VENDOR CONTACT:**
All potential vendors shall direct ALL questions, areas for bid clarification and specification verification to the Purchasing Agent IN WRITING, via mail or fax as follows:

The City Of Midland
Office of the Purchasing Manager
P.O. Box 1152
Midland, TX 79702

OR

FAX: (432) 685-0523

E-mail: purchasing@midlandtexas.gov

All vendors on the bid list will then be notified of the questions and presented an answer. Verbal responses shall not be considered binding.

**NOTE:** Bid and Proposal terms are interchangeable.

**AWARD**

If the Contract is awarded, it will be awarded to either the lowest responsible bidder, or to the bidder who provides goods or services at the best value for the City of Midland. In determining the best value for the City of Midland, the City of Midland may consider the criteria enumerated in Section 252.043 of the Texas Local Government Code.

**Public Information.** To the extent that Bidder is submitting a bid for a contract described by Section 552.371 of the Texas Government Code, Bidder agrees as follows in accordance with Section 552.372(b) of the Texas Government Code: The requirements of Subchapter J, Chapter 552, Government Code, may apply to this bid, and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

**BID WAIVERS:**

**A. WAIVER OF ATTORNEY FEES: BY SIGNING THIS PROPOSAL, BIDDER AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST THE CITY, REGARDING THE AWARD OF ATTORNEY'S FEES, WHICH ARE IN ANY WAY RELATED TO THE CONTRACT, OR THE CONSTRUCTION, INTERPRETATION OR BREACH OF THE CONTRACT. THE BIDDER SPECIFICALLY AGREES THAT IF THE BIDDER BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS CONTRACT, THE CONSTRUCTION, INTERPRETATION, VALIDITY OR BREACH OF THIS CONTRACT, INCLUDING BUT NOT LIMITED TO ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, THE BIDDER AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY'S FEES TO WHICH BIDDER MIGHT OTHERWISE BE ENTITLED.**

**BIDDER AGREES THAT THIS IS THE VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY EXISTING KNOWN RIGHT. THE BIDDER ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THE CONTRACT. THE BIDDER FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN THE CITY AND THE BIDDER.**

**THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.**

**THE BIDDER AND THE CITY ARE RELYING ON THEIR OWN JUDGMENT. EACH PARTY HAD THE OPPORTUNITY TO DISCUSS THIS CONTRACT WITH COMPETENT LEGAL COUNSEL PRIOR TO ITS EXECUTION.**

**B. WAIVER: BY SUBMITTING A BID, THE BIDDER AGREES TO WAIVE AND DOES HEREBY VOLUNTARILY AND INTENTIONALLY WAIVE, ABANDON AND RELINQUISH ANY CLAIM THE BIDDER HAS OR MAY HAVE IN THE FUTURE AGAINST THE CITY OF MIDLAND, TEXAS, AND THE CITY'S EMPLOYEES, AGENTS AND OFFICERS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE FOLLOWING:**

1. **THE ADMINISTRATION, EVALUATION OR RECOMMENDATION OF ANY BID;**

2. **WAIVER OR DELETION OF ANY OF THE REQUIREMENTS UNDER THE BID DOCUMENTS OR THE CONTRACT DOCUMENTS;**

3. **ACCEPTANCE OR REJECTION OF ANY BIDS; OR**

4. **AWARD OF THE CONTRACT.**

**BY SUBMITTING A BID, THE BIDDER ACKNOWLEDGES THAT THE BIDDER UNDERSTANDS ALL OF THE TERMS OF THE BIDDING DOCUMENTS AND CONSENTS TO THE BIDDING PROCESS AND THE POSSIBILITY OF A NEGATIVE ASSESSMENT. BY SUBMITTING A BID, THE BIDDER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN THE BIDDER AND THE CITY OF MIDLAND, TEXAS. THE BIDDER AGREES THAT THIS IS THE INTENTIONAL RELINQUISHMENT OF A PRESENTLY EXISTING KNOWN RIGHT. BY SIGNING THE REQUEST FOR BID AND/OR BELOW, YOUR COMPANY AGREES TO THE ABOVE WAIVER(S).**

**C. Notice of Alleged Breach; Statutory Prerequisites:** As a condition precedent to filing suit for alleged damages incurred by an alleged breach of an express or implied provision of this Contract, Bidder or his legal representative, shall give the City Manager, or any other reasonable official of the City, notice in writing (consisting of one original and seven copies of notice attached to a copy of this Contract) of such damages, duly verified, within one-hundred fifty (150) days after the same has been sustained. The discovery rule does not apply to the giving of this notice. The notice shall include when, where and how the damages occurred, the apparent extent thereof, the amount of damages sustained, the amount for which the Bidder will settle, the physical and mailing addresses of Bidder at the time and date the claim was presented and the physical and mailing addresses of Bidder for the six months immediately preceding the occurrence of such damages, and the names and addresses of the witnesses upon whom the Bidder relies to establish its claim; and a failure to so notify the City Manager within the time and manner provided herein shall exonerate, excuse and except the City from any liability whatsoever. The City is under no obligation to provide notice to Bidder that Bidder's notice is insufficient. The City reserves the right to request reasonable additional information regarding the claim. Said additional information shall be supplied within thirty (30) days after receipt of notice.

The statutory prerequisites outlined herein constitute jurisdictional requirements pursuant to Section 271.154 of the Texas Local Government Code and Section 311.034 of the Texas Government Code. Notwithstanding any other provision, Bidder's failure to comply with the requirements herein shall perpetually bar Bidder's claim for damages under Chapter 271 of the Texas Local Government Code, and Section 311.034 of the Texas Government Code, regardless if the City has actual or constructive notice or knowledge of said claim or alleged damages. Bidder agrees that the requirements of this entire Contract are reasonable.

By Signing below, your company agrees to the above waiver(s). If this form is not signed and included with your bid documents your bid will be considered non-responsive and will be rejected.

**GOVERNMENTAL IMMUNITY:** By executing this agreement CITY is not waiving its right of governmental immunity. CITY is retaining its immunity from suit. CITY is not granting consent to be sued by legislative resolution or action. **THERE IS NO WAIVER OF GOVERNMENTAL IMMUNITY**.

| Address, City and State | Please Print above Name | Fax |
|---|---|---|

**Bidder's Enclosure Check List:** (Bidder - Please review the following list and check to ensure that you have included the documents with your bid.)

☐ PROOF OF AUTOMOBILE, WORKER'S COMPENSATION AND GENERAL LIABILITY INSURANCE COVERAGE AS REQUIRED BY THE TERMS OF THE CONTRACT. (**Upon award and prior to execution of the contract The City of Midland will have to be added to the policy as an additional insured and a certificate issued reflecting that provision) including a waiver of subrogation as stated in the contract)**

PLEASE NOTE:

FAILURE TO INCLUDE ANY OF THE REQUIRED DOCUMENTS ON THE CHECK LIST, MAY CAUSE REJECTION OF YOUR BID.

***FAILURE TO PROVIDE LIABILITY OR WORKER'S COMPENSATION INSURANCE AND SUBSEQUENT CERTIFICATES; OR, PAYMENT AND/OR PERFORMANCE BONDS AS REQUIRED BY THE CONTRACT MAY CAUSE FORFEITURE OF YOUR BID BOND OR OTHER SURETY (I.E.- CASH OR CASHIERS CHECK).**

**PROFESSIONAL SERVICES AGREEMENT**
**24001410**

**THIS AGREEMENT** is made and effective the __day of __ 20____, by and between the CITY OF MIDLAND, TEXAS ("*CITY*"), a home-rule municipal corporation, and _____ ("*COMPANY*"). CITY and COMPANY are at times individually referred to as a "*Party*" and collectively referred to as the "*Parties.*"

## ARTICLE I. PURPOSE

The purpose of this Agreement is to state the terms and conditions under which COMPANY shall perform Downtown Parking Management and Mobile Application Services (the "*Services*") for CITY. The Services are more specifically set forth in **Exhibit A**, which is attached hereto and incorporated herein for all purposes.

## ARTICLE II. SERVICES TO BE PERFORMED

COMPANY shall provide the Services in a manner consistent with the same level of skill and care as other professionals that perform similar services for similar projects in approximately the same region and at approximately the same point in time. COMPANY represents that any employee who performs the Services shall be fully qualified and competent to perform the Services.

## ARTICLE III. FINANCIAL CONSIDERATIONS

CITY agrees to pay COMPANY an amount not to exceed $_____ for the performance of the Services. CITY agrees to pay COMPANY according to the schedule set forth in **Exhibit A** upon presentation of a monthly invoice. The monthly invoice shall set forth all service fees for the month and those expenses described in **Exhibit A** that COMPANY incurs during the previous month for which COMPANY receives advanced written approval from the City Manager. All additional and/or reimbursable expenses must be approved by the City Manager prior to incurring such expenses.

Within thirty (30) days of the date COMPANY's invoice is received by CITY, CITY shall pay the full amount of such invoice; provided, however, that if CITY objects to any portion of an invoice, CITY shall notify COMPANY of CITY's objection and the grounds therefor within fifteen (15) days of the date of receipt of the invoice, and the Parties shall immediately make every

effort to settle the disputed portion of the invoice. Notwithstanding the foregoing, CITY shall pay every portion of the invoice that is not in dispute within the 30-day period for payment.

## ARTICLE IV. TERM

The term of this Agreement shall be from _____ until _____. The initial contract(s) term is for a period of one (1) year. Renewals of the contract may be made at one (1) year intervals, not to exceed a total of five (5) years, at the City's option.

## ARTICLE V. TERMINATION AT WILL

CITY may terminate this Agreement at will, for any or no reason, upon giving COMPANY at least one hundred eighty (180) days' written notice. The Parties understand and agree that it is in CITY'S sole and absolute discretion to cancel this Agreement during the term set forth in Article IV without penalty to CITY. COMPANY has no expectation and has received no guarantees that this Agreement will not be terminated during the Agreement's term. The Parties have bargained for the flexibility of terminating this Agreement upon tender of the requisite notice at any time during this Agreement's term. All work and services under the Agreement shall be suspended upon termination of the Agreement becoming effective.

## ARTICLE VI. ASSIGNMENT

COMPANY shall not, either directly or indirectly, assign all or any part of this Agreement, or any interest, right or privilege herein, without obtaining CITY's prior written consent. The issue of whether to grant such consent shall be in the sole and absolute discretion of CITY.

## ARTICLE VII. OWNERSHIP AND CONFIDENTIALITY OF DOCUMENTS AND OTHER WORK PRODUCT

All reports, information and other data ("*Instruments of Service*") given to, prepared or assembled by COMPANY under this Agreement, and any other related document or item shall become the sole and exclusive property of CITY. The Instruments of Service shall be promptly delivered, without restriction, to CITY and such other persons or entities as CITY may designate; provided, however, that COMPANY may make copies of the Instruments of Service for its files.

## ARTICLE VIII. INDEPENDENT CONTRACTOR

COMPANY shall perform the Services as an independent contractor and not as an officer,

agent, servant or employee of CITY. COMPANY shall have exclusive control of and the exclusive right to control the details of the Services and all persons performing the same. COMPANY shall be solely responsible for the acts and omissions of its officers, agents, employees, contractors and subcontractors. The Parties acknowledge and agree that the doctrine of *respondeat superior* shall not apply as between CITY and COMPANY, its officers, agents, employees, contractors and subcontractors. Nothing in this Agreement shall be construed as creating a partnership or joint enterprise between CITY and COMPANY. No person performing the Services shall be considered an officer, agent, servant or employee of CITY. Further, it is specifically understood and agreed that nothing in this Agreement is intended nor shall be construed as creating a "Community of Pecuniary Interest" or "An Equal Right of Control" that would give rise to vicarious liability. COMPANY is an independent contractor under this Agreement and shall assume all rights, obligations, and liabilities applicable to it as an independent contractor. CITY does not have the power to direct the order in which the services are performed. CITY shall not have the right to control the means, methods or details of COMPANY'S work. COMPANY shall assume exclusive responsibility for performing the Services, and is entirely free to perorm the Services in its own way.

## ARTICLE IX. INSURANCE

During the term of this Agreement, COMPANY shall maintain and keep in full force and effect insurance in the following types and minimum amounts with companies authorized to do business in the State of Texas:

Commercial General Liability (including Contractual liability):

| | |
|---|---|
| -Personal Injury: | $1,000,000.00 per person |
| | $1,000,000.00 per occurrence |
| -Property Damage: | $500,000.00 per occurrence |
| Business Automobile Liability: | $250,000.00 combined single limit - |
| | Personal Injury and Property Damage |
| Workers' Compensation: | Statutory limits |
| Employers' Liability: | $500,000.00 per accident or occurrence |

The Commercial General Liability policy shall be on a per project aggregate, including completed operations, and shall be on a claims-occurred basis. This policy shall name CITY as an additional insured and waive subrogation in favor of CITY.

The Business Automobile Liability policy shall cover any vehicle for bodily injury and property damage, including owned vehicles, hired and non-city vehicles, and employee non-ownership, and the amount of such policy shall be a minimum of $250,000.00 covering any vehicle used for the execution of the Services. This policy shall name CITY as an additional insured and waive subrogation in favor of CITY.

The Workers' Compensation policy shall inure to the benefit of employees injured during the course and scope of their employment by COMPANY pursuant to this Agreement. The Workers' Compensation policy shall waive all rights of subrogation in favor of CITY.

All insurance policies required by this Agreement shall (i) provide for a waiver of subrogation in favor of CITY, and (ii) name CITY as an additional insured on a claims-occurred basis (except for the Workers' Compensation policy). Prior to any reduction or termination of the insurance policies referenced herein, COMPANY shall ensure that its insurance provider submits written notice to CITY no later than thirty (30) days prior to the reduction or termination of such coverage.

COMPANY shall contractually require all contractors, subcontractors, and sub-subcontractors that perform the Services to obtain insurance coverage that meets or exceeds the policy requirements and minimum amounts specified herein. All contractors, subcontractors, and sub-subcontractors shall obtain insurance policies that provide blanket waivers of subrogation in favor of the City of Midland and that name the City of Midland as an additional insured on a claims-occurred basis (except Workers' Compensation).

Prior to the execution of the Agreement, COMPANY shall provide one or more certificates of insurance specifically stating that requirements of this Article have been met, which shall be subject to the approval of CITY. CITY shall not be required to provide any insurance pursuant to this Agreement.

By executing this Agreement, COMPANY certifies that the certificate of insurance provided pursuant to this Article complies with the requirements of Chapter 1811 of the Texas Insurance Code. COMPANY shall not use an unapproved certificate of insurance or insert inappropriate language on a certificate. Compliance with state law and this Agreement is the sole and exclusive responsibility of COMPANY.

Notwithstanding any contrary provision contained herein, the City Manager, in his/her sole and absolute discretion, modify the insurance requirements contained in this Article.

## ARTICLE X. ATTORNEY FEES

**BY EXECUTING THIS AGREEMENT, COMPANY AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST CITY, REGARDING THE AWARD OF ATTORNEY FEES, WHICH ARE IN ANY WAY RELATED TO THIS AGREEMENT OR THE CONSTRUCTION, INTERPRETATION, OR BREACH OF THIS AGREEMENT. COMPANY SPECIFICALLY AGREES THAT IF COMPANY BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS AGREEMENT, THE CONSTRUCTION, INTERPRETATION, VALIDITY OR BREACH OF THIS AGREEMENT (INCLUDING, BUT NOT LIMITED TO, ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET SEQ., AS AMENDED) OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE), COMPANY AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY FEES TO WHICH COMPANY MIGHT OTHERWISE BE ENTITLED.**

**COMPANY AGREES THAT THIS IS A VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY-EXISTING KNOWN RIGHT. COMPANY ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THIS AGREEMENT. COMPANY FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN CITY AND COMPANY. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF GOVERNMENTAL IMMUNITY.**

**COMPANY IS RELYING ON ITS OWN JUDGMENT AND HAD THE OPPORTUNITY TO DISCUSS THIS AGREEMENT WITH COMPETENT LEGAL COUNSEL PRIOR TO ITS EXECUTION. THE PROVISIONS OF THIS ARTICLE SHALL SURVIVE THE TERMINATION OF THIS AGREEMENT.**

## ARTICLE XI. GOVERNMENTAL IMMUNITY

By executing this Agreement, CITY is not waiving its right of governmental immunity. CITY is retaining its immunity from suit. CITY is not granting consent to be sued by legislative resolution or action. **THERE IS NO WAIVER OF GOVERNMENTAL IMMUNITY.**

## ARTICLE XII. NO THIRD-PARTY BENEFICIARY

CITY's approval of this Agreement does not create a third-party beneficiary. There is no third-party beneficiary to this Agreement. No person or entity who is not a party to this Agreement shall have any third-party beneficiary or other rights hereunder.

## ARTICLE XIII. RELEASE

**NOTWITHSTANDING ANY CONTRARY PROVISION CONTAINED HEREIN, COMPANY HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY AND ITS AGENTS, COUNCIL MEMBERS, EMPLOYEES, AND OFFICERS FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES, OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH COMPANY HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF AGREEMENT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKINGS CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS, OR CITY'S NEGLIGENCE. THE PROVISIONS OF THIS ARTICLE SHALL SURVIVE THE TERMINATION OF THIS AGREEMENT.**

## ARTICLE XIV. GENERAL PROVISIONS

A. Waiver. No waiver by CITY of a breach of any covenant, condition, or restriction of this Agreement shall be construed or held to be a waiver of any succeeding or preceding breach of the same or any other covenant, condition, or restriction contained in this Agreement.

B. Governing Law and Venue. The laws of the State of Texas shall govern, construe and enforce all rights and duties of the Parties, including, but not limited to, tort claims and any contractual claims or disputes arising from or relating in any way to the subject matter of this Agreement, without regard to conflict of laws and rules that would direct application of the laws of another jurisdiction. All performance and payment made pursuant to this Agreement shall be deemed to have occurred in Midland County, Texas. The obligations and undertakings of the

Parties shall be deemed to have occurred in Midland County, Texas. Exclusive venue for any claim, suit, or other action arising from or connected in any way to this Agreement shall be in Midland County, Texas.

C. Notice. Any notice or demand made regarding this Agreement shall be made in writing and delivered, either in person or by certified or registered mail, at the addresses provided below. Notice by mail shall be complete upon deposit of the paper, postage prepaid, in a post office or official depository under the care and custody of the United States Postal Service.

If to CITY: City Manager's Office
P.O. Box 1152
Midland, Texas 79702

If to COMPANY: _____
_____
_____

The parties hereto may change the above-designated addresses by giving notice pursuant to the terms of this Section.

D. Severability. If one or more of the provisions contained in this Agreement are held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and this Agreement shall be construed as if the invalid, illegal, or unenforceable provision were never contained herein.

E. Use of Language. Words in the singular shall be held to include the plural, unless the context otherwise requires.

F. Amendments, Modifications, Alterations. No amendment, modification, or alteration of this Agreement shall be binding unless such is evidenced in writing, dated subsequent to the date of this Agreement, and duly executed by the Parties.

G. Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be deemed as original, and all of which shall constitute one and the same instrument.

H. Federal Wage Requirements. If applicable, the Davis-Bacon Act, 29 CFR 5.5, and any related acts or regulations are hereby incorporated by reference and made a part of this Agreement, and all terms and requirements under said statutes and regulations are made terms and conditions of this Agreement, to which the Parties have agreed to be bound.

I. Notice of Alleged Breach; Statutory Prerequisites. As a condition precedent to filing suit

for alleged damages incurred by an alleged breach of an express or implied provision of this Agreement, COMPANY or its legal representative shall give the City Manager, or any other reasonable official of CITY, written notice (consisting of one (1) original and seven (7) copies of such notice attached to a copy of this Agreement) of such duly-verified damages within one hundred fifty (150) days after the same has been sustained. The discovery rule does not apply to the giving of such notice. The notice shall include when, where, and how the damages occurred, the apparent extent thereof, the amount of damages sustained, the amount for which COMPANY will settle, the physical and mailing addresses of COMPANY at the time and date the claim was presented, the physical and mailing addresses of COMPANY for the six (6) months immediately preceding the occurrence of such damages, and the names and addresses of the witnesses upon whom COMPANY relies to establish its claim. COMPANY's failure to so notify the City Manager within the time and manner provided herein shall exonerate, excuse and except CITY from any liability whatsoever. CITY is under no obligation to provide notice to COMPANY that COMPANY'S notice is insufficient. CITY reserves the right to request additional information regarding the claim. Said additional information shall be supplied within thirty (30) days after COMPANY's receipt of such notice.

The statutory prerequisites outlined herein constitute jurisdictional requirements pursuant to Section 271.154 of the Texas Local Government Code and Section 311.034 of the Texas Government Code. Notwithstanding any contrary provision contained herein, COMPANY's failure to comply with the requirements herein shall perpetually bar COMPANY's claim for damages under Chapter 271 of the Texas Local Government Code, and Section 311.034 of the Texas Government Code, regardless of whether CITY has actual or constructive notice or knowledge of said claim or alleged damages. COMPANY agrees that the requirements of this entire Agreement are reasonable.

J. Prompt Pay Act. The Parties agree that Texas Government Code, Chapter 2251, Payment for Goods and Services does not waive the CITY's governmental immunity.

K. Compliance. COMPANY shall comply with Texas Government Code § 2252.908, *et seq.*, as amended, and Texas Local Government Code § 176.006, *et seq.*, as amended.

L. Anti-Boycott Statutes. To the extent that Tex. Gov't Code §§ 2271.002 and 2274.002 apply to this Agreement, COMPANY hereby verifies that:

- COMPANY does not boycott Israel and will not boycott Israel during the term of

this Agreement;

- COMPANY does not boycott energy companies and will not boycott energy companies during the term of this Agreement; and
- COMPANY does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of this Agreement against any firearm entity or firearm trade association.

If Tex. Gov't Code § 2270.002 does not apply to this Agreement, such verification is not required, and COMPANY shall be deemed to have not made such verification.

M. Records Retention and Production of Information. To the extent that this Agreement is a contract described by Tex. Gov't Code § 552.371, COMPANY shall: (i) preserve all contracting information related to the Agreement as provided by the records retention requirements applicable to CITY for the duration of the contract; (ii) promptly provide to CITY any contracting information related to the Agreement that is in the custody or possession of COMPANY on request of CITY; and (iii) on completion of the Agreement, either (a) provide at no cost to CITY all contracting information related to the Agreement that is in the custody or possession of COMPANY, or (b) preserve the contracting information related to the Agreement as provided by the records retention requirements applicable to CITY.

N. Public Information. To the extent that this Agreement is a contract described by Tex. Gov't Code § 552.371, COMPANY agrees as follows in accordance with Tex. Gov't Code § 552.372(b): The requirements of Subchapter J, Chapter 552, Government Code, may apply to this contract, and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

O. Conflict of Terms. If a conflict of terms or language exists between: (i) any of the provisions of this Agreement; and (ii) any of the provisions contained in any exhibit(s) attached to this Agreement, precedence shall be given to the provisions of this Agreement. For the avoidance of any doubt, the provisions contained in this Agreement shall supersede any and all conflicting provisions contained in any exhibit(s) attached hereto. Furthermore, the Parties acknowledge and agree that any provision contained in an exhibit(s) attached to this Agreement that imposes an additional express or implied obligation on CITY is hereby made void and of no force or effect. CITY's sole and exclusive obligations under this Agreement are contained in the provisions of this

Agreement that precede the signature page(s), which evidences the Parties' execution and acceptance hereof.

P. Iron or Steel Products Statute. Company agrees that all iron or steel products produced through a manufacturing process and used in the project that is the subject of this Agreement shall be produced in the United States in accordance with Government Code § 2252.202, et seq., as amended.

Q. Interpretation. By executing this Agreement, the Parties acknowledge and agree that this Agreement shall not be interpreted or construed against any Party solely because such Party or its legal counsel drafted this Agreement. The Parties have read, understood, and approve of the language and terms set forth herein.

## ARTICLE XV. INDEMNITY

**COMPANY SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND CITY AND ALL OF CITY'S OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, ACCIDENTAL DEATH, LOSSES, PROPERTY DAMAGE AND EXPENSES OF ANY CHARACTER WHATSOEVER, INCLUDING ATTORNEY'S FEES, BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ON ACCOUNT OF ANY NEGLIGENT ACT OF COMPANY, THEIR AGENTS OR EMPLOYEES, OR ANY SUBCONTRACTOR, IN THE EXECUTION, SUPERVISION AND OPERATIONS GROWING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF THIS AGREEMENT, AND COMPANY WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST CITY OR ANY OF ITS OFFICERS, AGENTS OR EMPLOYEES, INCLUDING ATTORNEY'S FEES.**

**COMPANY SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND CITY AND ALL OF CITY'S OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, ACCIDENTAL DEATH, PROPERTY DAMAGE, LOSSES, AND EXPENSES OF ANY CHARACTER WHATSOEVER INCLUDING ATTORNEY'S FEES, BROUGHT FOR OR ON**

**ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ON ACCOUNT OF ANY NEGLIGENT ACT OF CITY, CITY'S OFFICERS, AGENTS AND EMPLOYEES, WHETHER SUCH NEGLIGENT ACT WAS THE SOLE PROXIMATE CAUSE OF THE INJURY OR DAMAGE OR A PROXIMATE CAUSE JOINTLY AND CONCURRENTLY WITH COMPANY OR COMPANY'S EMPLOYEES, AGENTS OR SUBCONTRACTORS NEGLIGENCE IN THE EXECUTION, SUPERVISION AND OPERATIONS GROWING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF THIS AGREEMENT, AND COMPANY WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST CITY OR ANY OF ITS OFFICERS, AGENTS OR EMPLOYEES, INCLUDING ATTORNEY'S FEES.**

**COMPANY AGREES THAT IT WILL INDEMNIFY AND SAVE CITY HARMLESS FROM ALL CLAIMS GROWING OUT OF ANY DEMANDS OF SUBCONTRACTORS, LABORERS, WORKMEN, MECHANICS, MATERIALMEN, AND FURNISHERS OF MACHINERY AND PARTS THEREOF, EQUIPMENT, POWER TOOLS AND ALL SUPPLIES, INCURRED IN THE FURTHERANCE OF THE PERFORMANCE OF THIS AGREEMENT. WHEN CITY SO DESIRES, COMPANY SHALL FURNISH SATISFACTORY EVIDENCE THAT ALL OBLIGATIONS OF THE NATURE HEREINABOVE DESIGNATED HAVE BEEN PAID, DISCHARGED OR WAIVED. COMPANY, ITS SURETIES AND INSURANCE CARRIERS SHALL DEFEND, INDEMNIFY AND SAVE HARMLESS CITY AND ALL OF ITS OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, OR CLAIMS OF ANY CHARACTER WHATSOEVER, BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ARISING FROM ANY ACT OF COMPANY OR ANY SUBCONTRACTOR, THEIR AGENTS OR EMPLOYEES, IN THE EXECUTION AND SUPERVISION OF THIS AGREEMENT, AND WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST CITY OR ANY OF ITS OFFICERS, AGENTS, OR EMPLOYEES INCLUDING ATTORNEY'S FEES. THE OBLIGATIONS CONTAINED IN THIS SECTION XV SHALL SURVIVE THE TERMINATION OF THIS AGREEMENT.**

*[Signature Page(s) Follows]*

EXECUTED IN DUPLICATE the day and year first above mentioned.

THE CITY OF MIDLAND, TEXAS

_____
Tommy Gonzalez, City Manager

ATTEST:

_____
Marcia Bentley-German, City Governance Officer/City Secretary

APPROVED AS TO FORM ONLY:

_____
John Ohnemiller, City Attorney

COMPANY:

By: _____

Name:_____

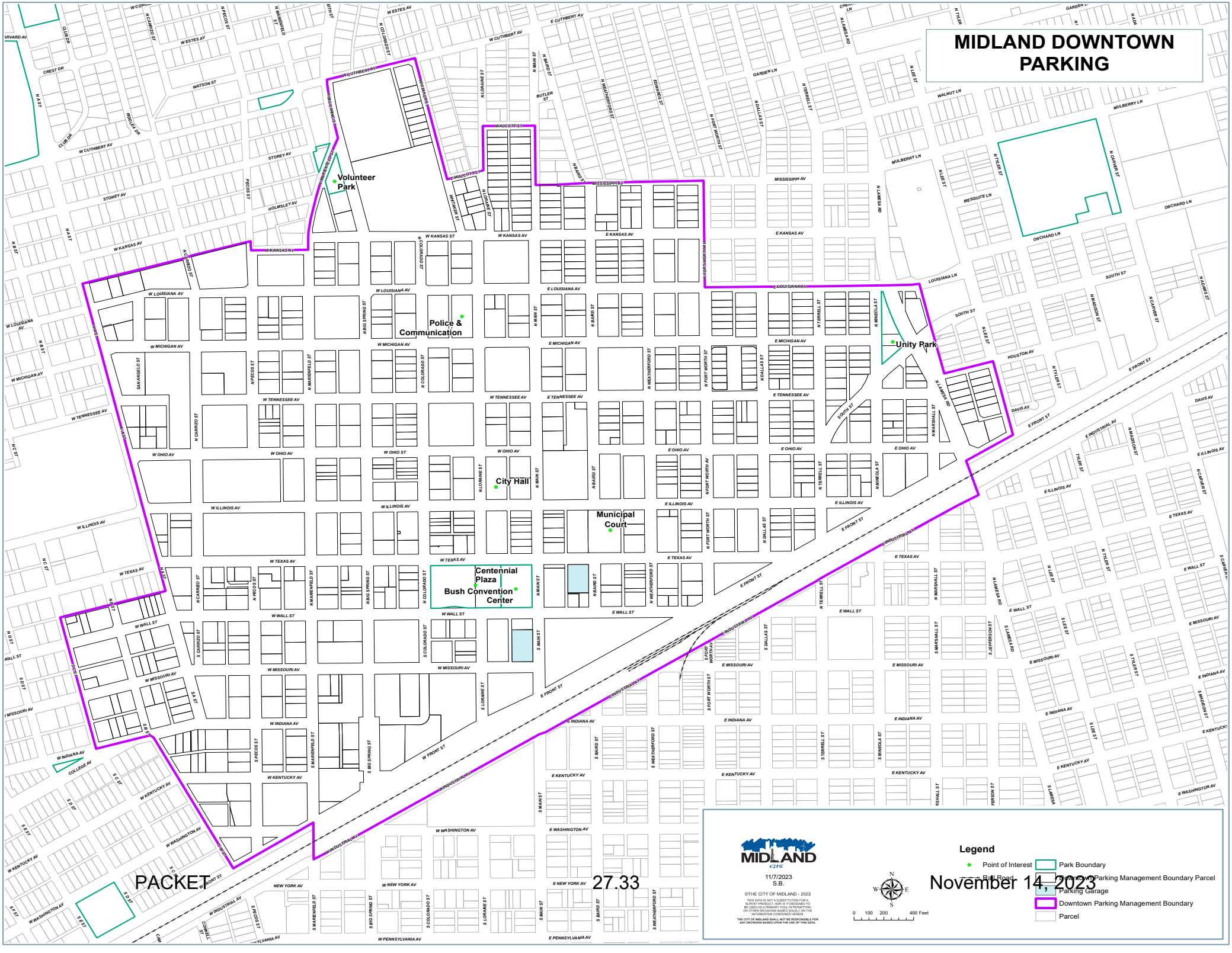
Title: _____

STATE OF _____§
§
COUNTY OF _____§

BEFORE ME, the undersigned authority, on this ____ day of _____, 20____ personally appeared, _____, an officer of _____, known to me to be the person and official whose name is subscribed to the forgoing instrument, and acknowledged to me that he executed the same as the act and deed of said corporation, for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the __day of _____, 20____.

_____
Notary Public, State of Texas


MIDLAND DOWNTOWN PARKING
Volunteer Park
Police & Communication
City Hall
Municipal Court
Centennial Plaza
Bush Convention Center
Unity Park
Legend
Point of Interest
Park Boundary
Rail Road
Downtown Parking Management Boundary Parcel
Parking Garage
Downtown Parking Management Boundary
Parcel
MIDLAND GIS
11/7/2023
S.B.
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THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT, NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS. USE AT YOUR OWN RISK OF THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.
0 100 200 400 Feet

# IMPORTANT NOTICE

## Conflict Of Interest Reporting Requirements

Compliance with LOCAL GOVERNMENT CODE TITLE 5. MATTERS AFFECTING PUBLIC OFFICERS AND EMPLOYEES SUBTITLE C. MATTERS AFFECTING PUBLIC OFFICERS AND EMPLOYEES OF MORE THAN ONE TYPE OF LOCAL GOVERNMENT CHAPTER 176. DISCLOSURE OF CERTAIN RELATIONSHIPS WITH LOCAL GOVERNMENT OFFICERS; PROVIDING PUBLIC ACCESS TO CERTAIN INFORMATION.

**Form CIQ:** This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session. This questionnaire shall be filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a). By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code. A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

Bidders are responsible for filing Conflict of Interest form "CIQ" in accordance with the above referenced statute. Failure to do so is a class C Misdemeanor. Contracts or Purchase Orders awarded to a vendor that has violated this law is subject to termination at such time that the violation is discovered with no recourse to the City of Midland. The bidder will be subsequently removed from the bidders list for a minimum of one year.

When there is no known conflict of interest as defined by the statute, it is not necessary to file/submit the Form CIQ. The form must be submitted if a conflict is subsequently discovered.

By submitting a response to this request, vendor represents that it complies with the requirements of Chapter 176 of the Texas Local Government Code.

For a current list of the local government officers go to: http://www.midlandtexas.gov/

Upon completion of the form, sign and submit with bid or mail to:

City of Midland
Attn: City Secretary
PO Box 1152
Midland, Texas 79702

# CONFLICT OF INTEREST QUESTIONNAIRE

**FORM CIQ**

**For vendor doing business with local governmental entity**

**This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.**

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

**OFFICE USE ONLY**

Date Received

**1** **Name of vendor who has a business relationship with local governmental entity.**

**2** ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

**3** **Name of local government officer about whom the information is being disclosed.**

_____

Name of Officer

**4** **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

**5** **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

**6** ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

**7**

_____ _____

Signature of vendor doing business with the governmental entity Date

# CONFLICT OF INTEREST QUESTIONNAIRE
## For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

**Local Government Code § 176.001(1-a):** "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;

(B) a transaction conducted at a price and subject to terms available to the public; or

(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

**Local Government Code § 176.003(a)(2)(A) and (B):**

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

**Local Government Code § 176.006(a) and (a-1)**

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

# Consideration of Location of Bidder's Principal Place of Business
## For Bids of $50,000 up to $100,000 for Services and $500,000 for Commodities
## Affidavit of Eligibility

Pursuant to Texas Local Government Code 271.9051, in purchasing real property, personal property that is not affixed to real property, or services, if the City receives one or more bids from a bidder whose principal place of business is in the City of Midland and whose bid is within five percent (5%) of the lowest bid price received by the City from a bidder who is not a resident of the City of Midland, the City may enter into a contract with:

(1) the lowest bidder; or

(2) the bidder whose principal place of business is in the City of Midland if the City Council determines, in writing, that the local bidder offers the City the best combination of contract price and additional economic development opportunities for the City of Midland created by the contract award, including the employment of residents of the City of Midland and increased tax revenues to the City of Midland.

In order to receive consideration, bidders must submit this affidavit to:

Erika Martinez
Purchasing Manager
City of Midland
300 N. Loraine St.,
PO BOX 1152
Midland, TX 79702-1152

*Complete all areas below. Incomplete affidavits may be rejected.*

Local Business Name: _____

Local Address (must be within the City limits): _____

1. Is the above address the principal place of business for the business named above? ☐ Yes ☐ No
2. How many residents of the City of Midland are employed at the above business location? _____
3. Year your business was established in the City of Midland: _____
4. If you collect sales tax for ANY class of customer, provide the following Reseller information:

   Reseller Permit Number: _____

   Company Name and Address (as it appears on permit):

   _____

   _____

   _____

5. Does your business have more than one office in the State of Texas? ☐ Yes ☐ No
   If Yes, identify the office location considered as the point-of sale for the purpose of sales tax calculation:

   _____

   _____

6. Was the local business required to pay business and/or real property tax for the most recent tax year?

   ☐ Yes ☐ No

   If Yes, did the local business pay any of this tax to the City of Midland? ☐ Yes ☐ No

Under penalty of perjury, the undersigned states that the foregoing statements are true and correct. It is further acknowledged that any person, firm, corporation or entity intentionally submitting false information to the City in an attempt to qualify for eligibility shall be prohibited from bidding on City of Midland products and services for a period of one (1) year.

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

# City Council Meeting

**Item Number:** 28

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** John Simmons, Manager, Right-of-Way

**Subject:** RESOLUTION AUTHORIZING THE ACCEPTANCE OF A GIFT DEED FROM PARK HILL RESOURCES, LLC, CONVEYING A 0.464-ACRE TRACT OF LAND LOCATED IN THE W.M. BALDRIDGE SURVEY NO. 17, BLOCK 37, T-2-S, ABSTRACT NO. 1065, MIDLAND COUNTY, TEXAS; AND ORDERING RECORDATION BY THE CITY SECRETARY (DISTRICT: NONE) (UTILITIES)

---

**Purpose:**

This resolution accepts a Gift Deed from Park Hill Resources, LLC ., of a 0.464–acre tract of land located in the W.M. Baldridge Survey No. 17, Block 37, T-2-S, Abstract No. 1065. Said Gift Deed dedication is part of the City's efforts to improve access to the Sanitary Landfill. Resolution is authorizing the acceptance of said Gift Deed; and ordering recordation by the City Secretary (City of Midland, Midland County).

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

A Gift Deed is being dedicated by Park Hill Resources, LLC), at no cost to the City

**Discussion:**

This Gift Deed Dedication will allow the Solid Waste Department to widen the existing access road to better accommodate traffic flow in and out of the City of Midland Landfill located at 7904 S. Garden City Highway.

The Gift Deed is attached, as is a plat showing the proposed easement, Staff supports

accepting this Right of Way Gift Deed Dedication.

Morris Williams Jr.

City Manager's Office

**RESOLUTION NO. _____**

**RESOLUTION AUTHORIZING THE ACCEPTANCE OF A GIFT DEED FROM PARK HILL RESOURCES, LLC, CONVEYING A 0.464-ACRE TRACT OF LAND LOCATED IN THE W.M. BALDRIDGE SURVEY NO. 17, BLOCK 37, T-2-S, ABSTRACT NO. 1065, MIDLAND COUNTY, TEXAS; AND ORDERING RECORDATION BY THE CITY SECRETARY**

**WHEREAS**, Park Hill Resources, LLC wishes to convey its right, title, and interest in the surface estate of a 0.464-acre tract of land located in the W. M. Baldridge Survey No. 17, Block 37, T-2-S, Abstract No. 1065, Midland Count Texas, to the City of Midland, Texas, for the purpose of widening the existing access road to the City of Midland Landfill; and

**WHEREAS**, the City Council finds it to be in the public interest to authorize the acceptance of a gift deed, a copy of which is attached hereto as Exhibit "A" and incorporated herein for all legal purposes, from Park Hill Resources, LLC, for such purpose;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE**. That the gift deed from Park Hill Resources, LLC, to the City of Midland conveying a 0.464-acre tract of land located in the W. M. Baldridge Survey No. 17, Block 37, T-2-S, Abstract No. 1065, Midland Count Texas, is hereby accepted.

**SECTION TWO.** That the Deputy City Manager is hereby authorized and directed to execute said gift deed.

**SECTION THREE**. That the City Secretary is hereby authorized and directed to record said gift deed in the official records of Midland County, Texas.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO FORM:

_____
John Ohnemiller, City Attorney

# GIFT DEED

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OF THE FOLLOWING INFORMATION FROM THIS INSTRUMENT BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

| | |
|---|---|
| **Grantor:** | Park Hill Resources, LLC ("Park Hill") |
| **Grantor's Mailing Address:** | 777 Hidden Ridge, Irving, Texas 75038 |
| **Grantee:** | City of Midland, Texas |
| **Grantee's Mailing Address:** | 300 N. Loraine, Midland, TX 79701 |
| **Consideration:** | In support of the initiatives of the civic purposes of Grantee |
| **The Lands:** | THE SURFACE ESTATE ONLY IN AND TO THE FOLLOWING DESCRIBED TRACTS OF LAND:<br><br>A 0.464-acre tract in the W.M. Baldridge Survey No. 17, Block 37, Township-2-South, Abstract No. 1065, Midland County, Texas being a portion of that certain 335.23-acre tract described in Instrument No. 2020-34285 of the Official Public Records of Midland County, Texas; said 0.464-acre tract being more particularly described in the Exhibit "A" attached hereto. |

**Reservations from Conveyance:**

1.) For Grantor and Grantor's heirs, successors and assigns, a reservation of all right, title and interest in and to the minerals of whatsoever nature in, under, on, or that may be produced from the Lands including all rights incident thereto.

2.) All existing wellbores, drill sites, production and handling facilities, electrical facilities, poles and lines, access routes, roads, temporary water lines, tanks, tank battery sites, ponds, pipe lines, fiber optic cables, road bores and any other equipment and appurtenances related to the production of oil and gas, which will remain on the Lands and remain the property of Operator pursuant to the terms and conditions of that certain Surface and Subsurface Use Agreement between Park Hill Resources, LLC and Pioneer Natural Resources USA, Inc, dated August 17, 2023, recorded as Instrument Number 22229 in the Real Property Recordings of Midland County, Texas (the "Surface Agreement").

**Conveyance is made expressly subject to:**

1.) The Surface Agreement, as described above.

2.) All other validly existing easements, rights-of-way, and perspective rights, of record; all presently recorded and validly existing instruments, other than conveyances of the surface fee estate that affect the Lands; validly existing utility easements created by the dedication deed or plat of the subdivision in which the Lands are located, recorded in the Official Public Records of Midland County, Texas; any discrepancies, conflicts, or shortages in area or boundary lines,

which Grantee assumes and agrees to pay and subsequent assessments for that and prior years due to change in land use, ownership, or both, the payment of which Grantee assumes.

Grantor, for the Consideration and subject to the Reservations from Conveyance, instruments, and burdens referenced herein, quitclaims unto Grantee and Grantee's successors and assigns, without warranty of any kind, all of Grantor's rights, title, and interests, if any, in and to the SURFACE estate only of the Lands, together with all and singular the rights and appurtenances thereto in any way belonging, to have and to hold it to Grantee and Grantee's heirs, successors, and assigns forever.

**GRANTOR**:

PARK HILL RESOURCES, LLC

By: Dennis M. Lithgow, Vice President, Permian Infrastructure Development and Operations

By: _____

Name: Dennis M. Lithgow,

Title: Vice President, Permian Infrastructure Development and Operations

**GRANTEE:**

CITY OF MIDLAND, TEXAS

By: _____

Name: Morris Williams, Jr.

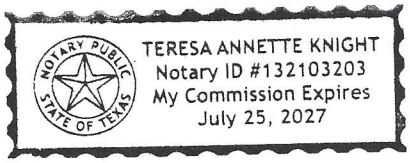
Title: Deputy City Manager

**[Acknowledgments Continue on Next Page]**

## ACKNOWLEDGMENTS

STATE OF TEXAS §
§
COUNTY OF MIDLAND §

This instrument was acknowledged before me on this 17th day of OCTOBER, 2023, by Dennis M. Lithgow, Vice President, Permian Infrastructure Development and Operations of Park Hill Resources, LLC, a Delaware limited liability company, acting on behalf of said limited liability company.




Teresa Annette Knight
Notary Public, State of Texas

STATE OF TEXAS §
§
COUNTY OF MIDLAND §

This instrument was acknowledged before me on the _____ day of _____, 2023, by Morris Williams, Jr., Deputy City Manager for the City of Midland, Texas, a municipal corporation, on behalf of said municipal corporation.

My Commission Expires: _____

_____
Notary Public, State of Texas

Parkhill

# Exhibit "A"

## A 0.464-ACRE TRACT
## IN THE W.M. BALDRIDGE SURVEY NO. 17
## BLOCK 37, T-2-S, ABSTRACT NO. 1065
## MIDLAND COUNTY, TEXAS

A 0.464-acre tract in the W.M. Baldridge Survey No. 17, Block 37, T-2-S, Abstract No. 1065, Midland County, Texas, being a portion of that certain 335.23-acre tract described in Instrument No. 2020-34285 of the Official Public Records of Midland County, Texas; said 0.464-acre tract being more particularly described as follows and as surveyed on-the-ground under the supervision of Parkhill on August 1, 2023:

BEGINNING at a 1/2-inch iron rod set in the west line of said Abstract No. 1065, the east line of the A.P. Veazy Survey No. 48, Block 38, T-2-S, Abstract No. 1059, the east line of that certain 80-acre tract, Tract 12, described in Volume 1039, Page 211 of the Deed Records of Midland County, Texas, the west line of said 335.23-acre tract, and the east line of that certain 50-foot easement described in Volume 860, Page 726 of said Deed Records, for the south corner hereof, and from which a 1/2-inch iron rod found at the southwest corner of said Abstract No. 1065, the southeast corner of said Abstract No. 1059, and the southwest corner of said 335.23-acre tract bears *South 14 degrees 14 minutes 46 seconds East* a distance of 69.09 feet, said beginning point having coordinates of NORTHING: 10680024.07 and EASTING: 1802082.84, Texas State Plane Coordinate System, Central Zone 4203, North American Datum of 1983;

THENCE *North 14 degrees 14 minutes 46 seconds West* a distance of 866.93 feet along the west line of said Abstract No. 1065, the east line of said Abstract No. 1059, the east line of the A.P. Veazy Survey No. 47, Block 38, T-2-S, Abstract No. 1058, the east line of said Tract 12, the east line of that certain 80-acre tract, Tract V, described in Volume 682, Page 478 of said Official Public Records, and the west line of said 335.23-acre tract to a 1/2-inch iron rod set for the northwest corner hereof, and from which a 1/2-inch iron rod found at the northwest corner of said Abstract No. 1065 and the northwest corner of said 335.23-acre tract bears *North 14 degrees 14 minutes 46 seconds West* a distance of 854.15 feet and a 1-inch iron pipe found at the northwest corner of said Abstract No. 1059 and the southwest corner of said Abstract No. 1058 bears *South 14 degrees 14 minutes 46 seconds East* a distance of 55.27 feet and *South 75 degrees 47 minutes 04 seconds West* a distance of 2498.81 feet;

THENCE crossing said 335.23-acre tract, the following 6 courses:

1. *South 47 degrees 28 minutes 11 seconds East* a distance of 46.16 feet to a 1/2-inch iron rod set;
2. *North 75 degrees 56 minutes 06 seconds East* a distance of 35.00 feet to a 1/2-inch iron rod set;
3. *South 14 degrees 03 minutes 54 seconds East* a distance of 25.00 feet to a 1/2-inch iron rod set;
4. *South 75 degrees 56 minutes 06 seconds West* a distance of 35.00 feet to a 1/2-inch iron rod set;
5. *South 14 degrees 02 minutes 59 seconds East* a distance of 720.20 feet to a 1/2-inch iron rod set;
6. *South 01 degrees 03 minutes 16 seconds West* a distance of 86.17 feet to the POINT OF BEGINNING containing 0.464 acres, more or less, and as shown on certified plat herewith.

Note: Bearings and coordinates shown hereon are based on the Texas State Plane Coordinate System, Central Zone 4203, North American Datum of 1983. Distances reported hereon are at grid. Areas reported hereon are based on calculations made from grid distances. A "1/2-inch iron rod set" is a 1/2-inch rebar with a plastic cap marked "PARKHILL RPLS 6889". This survey is subject to any facts which may be disclosed by a full and accurate title search. Record documents other than those described hereon may affect this tract.

Surveyed by

Franklin Leamons

Franklin Leamons
Registered Professional Land Surveyor #6889
Date: August 2, 2023

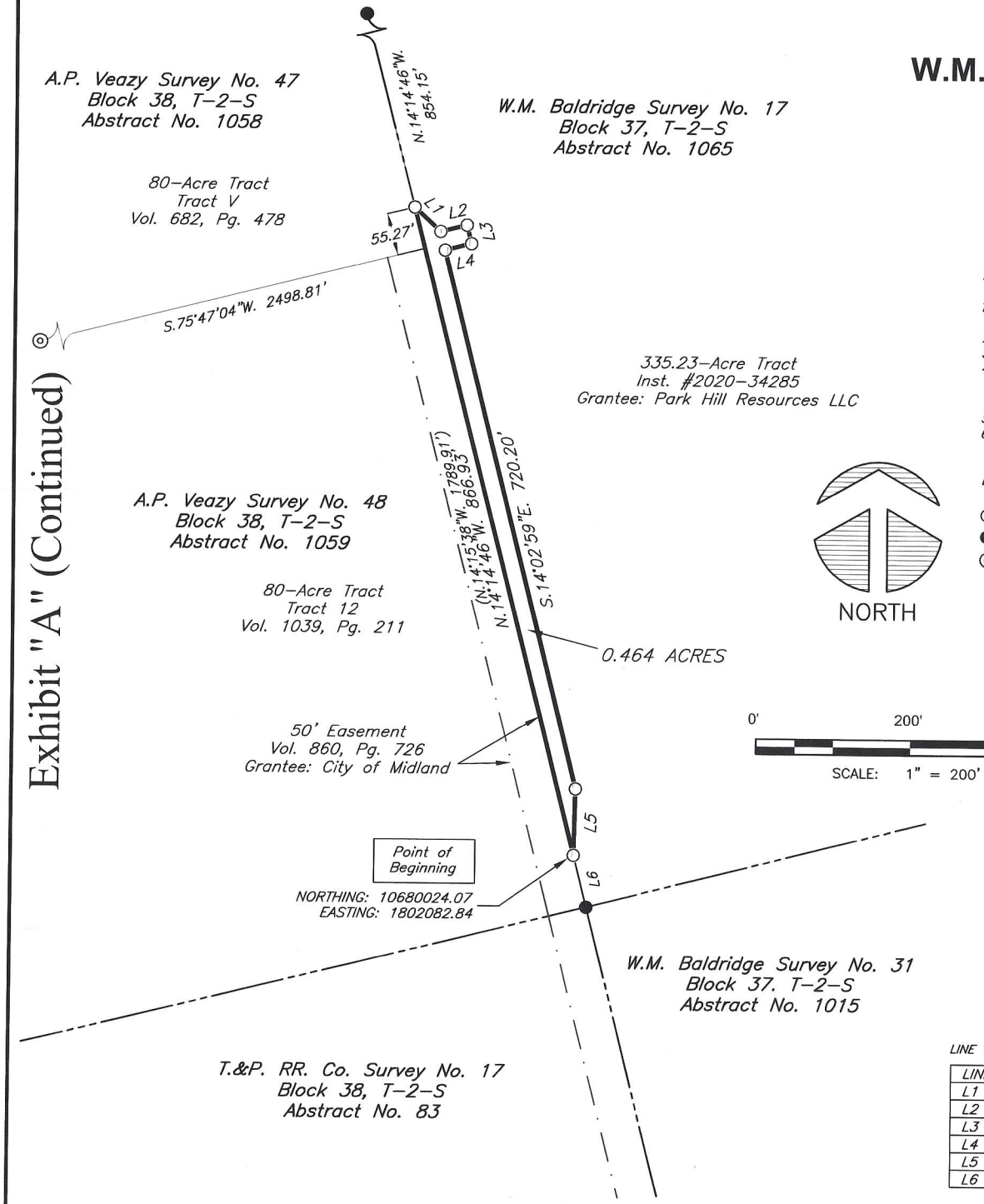


# A 0.464-ACRE TRACT IN W.M. BALDRIDGE SURVEY NO. 17, BLOCK 37 ABSTRACT NO. 1065 MIDLAND COUNTY, TEXAS

PARENT TRACT: INSTRUMENT NO. 2020-34285, OFFICIAL PUBLIC RECORDS
MIDLAND COUNTY, TEXAS

November 14, 2023

Exhibit "A" (Continued)




SURVEYOR'S REPORT:

1. Bearings and coordinates shown hereon are based on the Texas State Plane Coordinate System, Central Zone 4203, NAD83.
2. Distances reported hereon are at grid.
3. Areas reported hereon are based on calculations made from grid distances.
4. This survey was prepared without the benefit of a current title report/commitment. there may be easements, restrictions, and/or covenants affecting this property, not shown hereon.
5. This plat is invalid unless it bears the surveyor's original seal and signature.
6. A metes and bounds description accompanies this plat.

LEGEND:

- ○ Set 1/2" iron rod with cap "PARKHILL RPLS 6889".
- ● Found 1/2" iron rod.
- ◎ Found 1" iron pipe.
- (brearing and distance) = Record Call
- Tract Limits Boundary Line
- Tract Adjoiner Line
- Abstract Line
- Easement Line

STATE OF TEXAS
REGISTERED
FRANKLIN A. LEAMONS
6889
PROFESSIONAL
LAND SURVEYOR

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE PLAT AS SHOWN HEREON WAS PREPARED FROM AN ON-THE-GROUND SURVEY PERFORMED BY ME OR UNDER MY SUPERVISION AND COMPLETED ON AUGUST 1, 2023; NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY.

Franklin Leamons — AUG. 2, 2023

FRANKLIN LEAMONS — DATE
R.P.L.S. 6889

LINE TABLE

| LINE | BEARING | DISTANCE |
|---|---|---|
| L1 | S.47°28'11"E. | 46.16' |
| L2 | N.75°56'06"E. | 35.00' |
| L3 | S.14°03'54"E. | 25.00' |
| L4 | S.75°56'06"W. | 35.00' |
| L5 | S.01°03'16"W. | 86.17' |
| L6 | S.14°14'46"E. | 69.09' |

Parkhill
Parkhill.com
TBPELS FIRM REGISTRATION NO. 10194091

PACKET 289

# City Council Meeting

**Item Number:** 29

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** John Simmons, Manager, Right-of-Way

**Subject:** RESOLUTION AUTHORIZING THE CITY MANAGER, DEPUTY CITY MANAGER, OR AN ASSISTANT CITY MANAGER TO EXECUTE ALL DOCUMENTS RELATED TO ACQUISITIONS OF REAL PROPERTY INTERESTS ON BEHALF OF THE CITY OF MIDLAND TO THE EXTENT THAT THE CITY COUNCIL PREVIOUSLY AUTHORIZED THE CITY MANAGER TO ACQUIRE REAL PROPERTY INTERESTS OR EXECUTE SUCH DOCUMENTS (DISTRICT: ALL) (UTILITIES)

---

**Purpose:**

Resolution authorizing City Manager, Deputy City Manager, or an Assistant City Manager to execute all documents related to acquisitions of real property interests on behalf of the City of Midland to the extent that the City Council previously authorized the City Manager to acquire real property interests or execute such documents.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

No impact

**Discussion:**

Resolution authorizing the City Manager, Deputy City Manager, or an Assistant City Manager to execute all documents related to acquisitions of real property interests on behalf of the City of Midland to the extent that the City Council previously authorized the City Manager to acquire real property interests or execute such documents.



City Manager's Office

**RESOLUTION NO. _____**

**RESOLUTION AUTHORIZING THE CITY MANAGER, DEPUTY CITY MANAGER, OR AN ASSISTANT CITY MANAGER TO EXECUTE ALL DOCUMENTS RELATED TO ACQUISITIONS OF REAL PROPERTY INTERESTS ON BEHALF OF THE CITY OF MIDLAND TO THE EXTENT THAT THE CITY COUNCIL PREVIOUSLY AUTHORIZED THE CITY MANAGER TO ACQUIRE REAL PROPERTY INTERESTS OR EXECUTE SUCH DOCUMENTS**

**WHEREAS**, the City Council finds it to be in the public interest to authorize the City Manager, Deputy City Manager, or an Assistant City Manager to execute all documents related to acquisitions of real property interests on behalf of the City of Midland to the extent that the City Council previously authorized the City Manager to acquire real property interests or execute such documents;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the City Manager, Deputy City Manager, or an Assistant City Manager is hereby authorized to execute all documents related to acquisitions of real property interests on behalf of the City of Midland to the extent that the City Council previously authorized the City Manager to acquire real property interests or execute such documents.

**SECTION TWO.** That for the avoidance of doubt, this resolution supersedes any requirement of a prior City Council action that the City Manager be the City employee who acquires real property interests or executes documents related to acquisitions of real property interests on behalf of the City. This resolution does not supersede any other requirement or condition contained in any such prior City Council action.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Jose Ortiz, Assistant City Manager

_____
Kerry J. Koehler, Director of Capital Improvement Projects

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

S:\Resolutions\Engineering\2023\Authorize DCM & ACMs to Sign.wpd

# City Council Agenda

Approved for Agenda:

City Manager's Office

**MEETING DATE:** 11/14/2023

**TO:** **City Council / City Manager**

**FROM:** **Kerry Koehler, Capital Improvements Director**

**SUBJECT:** **Resolution authorizing the City Manager or City Manager Designee to sign all documents necessary for all outstanding resolutions.**

---

**Purpose:**

Resolution authorizing City Manager, Deputy City Manager, or an Assistant City Manager to execute all documents related to acquisitions of real property interests on behalf of the City of Midland to the extent that the City Council previously authorized the City Manager to acquire real property interests or execute such documents.

**Recommended City Council Action**

☒ Approve ☐ Deny ☐ Directional / Informational

# City Council Meeting

**Item Number:** 30

**Meeting Date:** October 24, 2023, November 14, 2023

**To:** City Council / City Manager

**From:** Cristina Odenborg Burns, Director of Community Services

**Subject:** AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS, PURSUANT TO CHAPTER 311 OF THE TEXAS TAX CODE, CREATING TAX INCREMENT FINANCING REINVESTMENT ZONE NUMBER TWO, CITY OF MIDLAND, TEXAS (DISTRICT: 2 & 3) (COMMUNITY SERVICES)

---

**Purpose:**

Ordinance of the City Council of the City of Midland, Texas, pursuant to Chapter 311 of the Texas Tax Code, creating Tax Increment Financing Reinvestment Zone Two, City of Midland, Texas.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

All incremental tax value above the 2023 base value will go into the TIRZ fund to support development projects.

**Discussion:**

Tax increment financing originated as a tool for governments to publicly finance needed improvements and enhance infrastructure within a defined area in order to stimulate private development and redevelopment. An ad valorem valuation base is established the year in which the TIRZ is created, and the revenue from the increased valuation from subsequent years is allocated into a tax increment reinvestment zone (TIRZ) fund to support development projects. The City of Midland previously established TIRZ #1 on March 20, 2001, which included approximately 449 acres in central Midland (the downtown area).

With the renewed interest in downtown development that has been catalyzed by Centennial Park, establishing TIRZ #2 will benefit the community by fostering economic growth, revitalizing infrastructure, and enhancing the overall quality of life for residents and businesses.

This creation ordinance establishes five key elements of the TIRZ:

- Boundary
- Term
- City Participation Level
- TIRZ Board
- Preliminary Project and Financing Plan

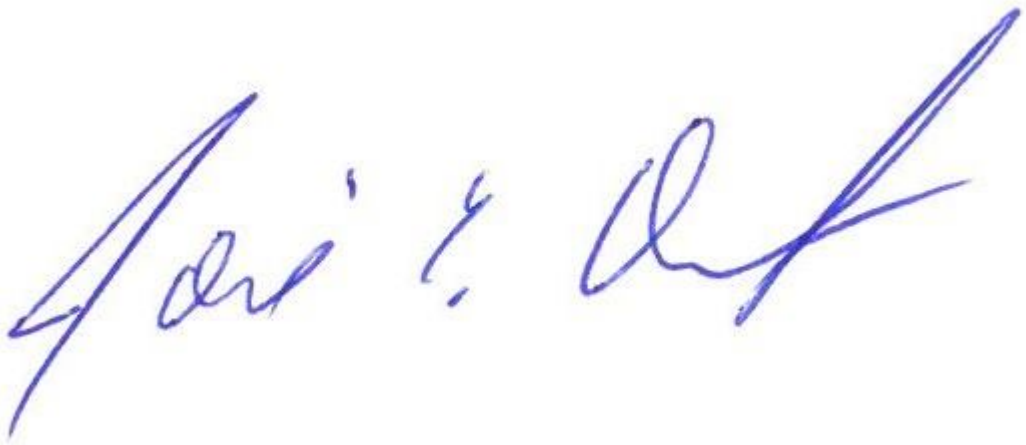
The TIRZ will encompass the downtown area with the boundaries being generally located north of Industrial Avenue, east of C Street, south of Cuthbert Avenue, and west of Lee Street. The proposed boundaries are the same as those of TIRZ #1.

The proposed term of the TIRZ is 30 years, with an expiration on December 31, 2053.

The City will have a 100% participation level, which means all incremental tax revenue above the 2023 base value will go into the TIRZ fund. The City will also have discussions with other taxing entities for potential future participation.

The TIRZ Board will consist of seven individuals, which can be City Council members and/or individuals appointed by City Council. Additionally, each taxing entity that chooses to participate in the TIRZ may appoint two members to the board. The maximum number of directors shall not exceed fifteen (15).

Exhibit C of this ordinance is the preliminary project and financing plan for the TIRZ. Proposed projects to be funded by the TIRZ fund are public utility projects; parking and transit improvements; street and intersection improvements; pedestrian enhancements; open space, park and recreation, and public facilities improvements; and economic development grants. Upon the TIRZ's creation, the Final Project and Financing Plan is approved by the TIRZ Board and then by the City Council by separate ordinance.



City Manager's Office

**ORDINANCE NO. _____**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS, PURSUANT TO CHAPTER 311 OF THE TEXAS TAX CODE, CREATING TAX INCREMENT FINANCING REINVESTMENT ZONE NUMBER TWO, CITY OF MIDLAND, TEXAS**

**WHEREAS,** the City of Midland, Texas (the "City"), pursuant to Chapter 311 of the Texas Tax Code, as amended (the "Act"), may designate a geographic area within the City as a tax increment reinvestment zone if the area satisfies the requirements of the Act; and

**WHEREAS,** the Act provides that the governing body of a municipality by ordinance may designate a contiguous geographic area that is in the corporate limits of the municipality or the extraterritorial jurisdiction (the "ETJ") of the municipality to be a reinvestment zone if the governing body determines that development or redevelopment would not occur solely through private investment in the reasonably foreseeable future; and

**WHEREAS,** the City Council desires to promote the development of a certain contiguous geographic area in the City, which is more specifically described in ***Exhibits "A"*** and ***"B"*** of this Ordinance (the "Zone"), through the creation of a reinvestment zone as authorized by and in accordance with the Tax Increment Financing Act, codified at Chapter 311 of the Texas Tax Code; and

**WHEREAS,** pursuant to and as required by the Act, the City has prepared a *Preliminary Reinvestment Zone Project Plan and Financing Plan for Reinvestment Zone Number Two, City of Midland,* attached as ***Exhibit C*** (hereinafter referred to as the "Preliminary Project and Finance Plan") for a proposed tax increment reinvestment zone containing the real property within the Zone; and

**WHEREAS,** notice of the public hearing on the creation of the proposed zone was published in a newspaper having general circulation in the City on October 13, 2023, which date is before the seventh (7th) day before the public hearing held on October 24, 2023; and

**WHEREAS,** at the public hearing on October 24, 2023, interested persons were allowed to speak for or against the creation of the Zone, the boundaries of the Zone, and the concept of tax increment financing, and owners of property in the proposed Zone were given a reasonable opportunity to protest the inclusion of their property in the Zone; the public hearing was held in full accordance with Section 311.003(c) of the Act; and

**WHEREAS,** evidence was received and presented at the public hearing on October 24, 2023, and in favor of the creation of the Zone; and

**WHEREAS,** after all comments and evidence, both written and oral, were received by the City Council, the public hearing was closed on October 24, 2023; and

**WHEREAS,** the City has taken all actions required to create the Zone including, but not limited to, all actions required by the home-rule Charter of the City, the Act, the Texas Open Meetings Act (defined herein), and all other laws applicable to the creation of the Zone; and

**WHEREAS,** the percentage of the property in the proposed zone, excluding property that is public owned, that is used for residential purposes is less than thirty percent; and

**WHEREAS,** a Preliminary Project and Finance plan has been prepared for the proposed reinvestment zone.

**NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS, THAT:**

**SECTION ONE. RECITALS INCORPORATED.**

The facts and recitations contained in the preamble of this Ordinance are hereby found and declared to be true and correct.

**SECTION TWO. FINDINGS.**

That the City Council, after conducting the above-described hearing and having heard the evidence and testimony presented at the hearing, has made the following findings and determined based on the evidence and testimony presented to it:

(a) That the public hearing on the expansion of the reinvestment zone has been properly called, held, and conducted and that notice of such hearing has been published as required by law; and

(b) That the creation of the proposed reinvestment zone with boundaries as described and depicted in ***Exhibits "A"*** and ***"B"*** will result in benefits to the City, its residents and property owners, in general, and to the property, residents, and property owners in the reinvestment zone; and

(c) That the proposed reinvestment zone, as defined in ***Exhibits "A"*** and ***"B"***, meets the criteria for the creation of a reinvestment zone set forth in the Act in that:

1. It is a geographic area located within the City limits of the City; and

2. That the City Council further finds and declares that the proposed zone meets the criteria and requirements of Section 311.005 of the Texas Tax Code because the proposed zone is predominantly open and, because of obsolete platting, deterioration of structures or site improvements, or other factors, substantially impair or arrest the sound growth of the City or county.

(d) That 30 percent or less of the property in the proposed reinvestment zone, excluding property dedicated to public use, is currently used for residential purposes; and

(e) That the total appraised value of all taxable real property in the proposed reinvestment zone according to the most recent appraisal rolls of the City, together with the total appraised value of taxable real property in all other existing reinvestment zones within the City, according to the most recent appraisal rolls of the City, does not exceed 50 percent of the current total appraised value of taxable real property in the City and in the industrial districts created by the City, if any; and

(f) That the improvements in the proposed reinvestment zone will significantly enhance the value of all taxable real property in the proposed reinvestment zone and will be of general benefit to the City or county; and

(g) That the development or redevelopment of the property in the proposed reinvestment zone will not occur solely through private investment in the reasonable foreseeable future.

**SECTION THREE. DESIGNATION AND NAME OF THE ZONE.**

Pursuant to the authority of, and in accordance with the requirements of the Act, the City Council hereby designates the area described and depicted in Exhibits "A" and "B" hereto as a tax increment reinvestment zone. The name assigned to the zone for identification is Reinvestment Zone Number Two, City of Midland, Texas (hereinafter referred to as the "Zone").

**SECTION FOUR. BOARD OF DIRECTORS.**

That a board of directors for the Zone ("Board") is hereby created. The Board shall consist of seven (7) members appointed by the City Council. The seven (7) members appointed by the City Council may include the Mayor and the members of the City Council.

The Board shall elect a chairman of the Board. The Board may elect a vice chairman and such other officers as the Board sees fit. Additionally, each taxing unit that levies taxes within the Zone and chooses to contribute all or part of the tax increment produced by the unit into the Tax Increment Fund may appoint two (2) members of the board. The number of directors on the Board of Directors shall be increased by two (2) for each taxing unit that appoints two (2) directors to the board; provided, that the maximum number of directors shall not exceed fifteen (15).

The Board shall make recommendations to the City Council concerning the administration, management, and operation of the Zone. The Board shall prepare and adopt a project plan and a reinvestment zone financing plan for the Zone and submit such plans to the City Council for its approval. The Board shall perform all duties imposed upon it by Chapter 311 of the Texas Tax Code and all other applicable laws.

The Board may establish and provide for the administration of one or more programs for the public purposes of developing and diversifying the economy of the Zone, eliminating unemployment and underemployment in the Zone, and developing or expanding transportation, business, and commercial activity in the Zone, including programs to make grants and loans from the Tax Increment Fund of the Zone in an aggregate amount not to exceed the amount of the tax increment produced by the City and paid into the Tax Increment Fund for the Zone for activities that benefit the Zone and stimulate business and commercial activity in the Zone; provided, however, that any such program shall be subject to final approval of the City Council. For the avoidance of doubt, the Board's establishment and administration of a program authorized by this paragraph, including but not limited to an agreement, amendment of an agreement, or renewal of an agreement authorized by Chapter 380, Local Government Code, in conjunction with Chapter 311, Local Government Code, shall be of no force or effect unless it is approved by the City Council.

Notwithstanding anything to the contrary herein, the Board shall not be authorized to (i) issues bonds; (ii) impose taxes or fees; (iii) exercise the power of eminent domain, or (iv) give final approval to the Zone's project plan and financing plan.

**SECTION FIVE. DURATION OF THE ZONE.**

That the Zone shall take effect immediately upon the passage and approval of this Ordinance, consistent with Section 311.004(a)(3) of the Act, and termination of the Zone shall occur upon any of the following: (i) on December 31, 2053 (with the final year's tax increment to be collected by September 1, 2054); (ii) at an earlier time designated by subsequent ordinance; (iii) at such time, subsequent to the issuance of tax increment bonds, if any, that all project costs, tax increment bonds, notes and other obligations of the Zone, and the interest thereon, have been paid in full, in accordance with Section 311.017 of the Act.

**SECTION SIX. TAX INCREMENT BASE AND TAX INCREMENT.**

That the tax increment base for the Zone, as defined by Section 311.012(c) of the Texas Tax Code, shall be the total appraised value of all real property in the Zone taxable by a taxing unit, determined as of January 1, 2023, which is the year in which the Zone was designated as a reinvestment zone.

The Tax Increment Fund shall consist of (i) the percentage of the tax increment, as defined by Section 311.012(a) of the Texas Tax Code, that each taxing unit which levies real property taxes in the Zone, other than the City, has elected to dedicate to the Tax Increment Fund under an agreement with the City authorized by Section 311.013(f) of the Texas Tax Code, (ii) one hundred percent (100%) of the City's tax increment, as defined by section 311.012(a) of the Texas Tax Code, subject to any binding agreement executed at any time by the City that pledges a portion of such tax increment or an amount of other legally available funds whose calculation is based on receipt of any portion of such tax increment.

**SECTION SEVEN. TAX INCREMENT FUND.**

That there is hereby created and established a "Tax Increment Fund" for the Zone which may be divided into such subaccounts as may be authorized by subsequent ordinance, into which all tax increments of the City, as such increments are described in the final project plan and reinvestment zone financing plan and may include administration costs, less any of the amounts not required to be paid into the Tax Increment Fund pursuant to the Act, are to be deposited. The Tax Increment Fund and any subaccounts are to be maintained in an account at the affiliated depository bank of the City and shall be secured in the manner prescribed by law for funds of Texas cities. In addition, all revenues from (i) the sale of any obligations hereafter issued by the City and secured in whole or in part from the tax increments; (ii) the sale of any property acquired as part of a tax increment financing plan adopted by the Board; and (iii) other revenues dedicated to and used in the Zone shall be deposited into the TIF Fund. Prior to the termination of the Zone, money shall be disbursed from the Tax Increment Fund only to pay project costs, as defined by the Texas Tax Code, for the Zone, to satisfy the claims of holders of tax increments bonds or notes issued for the Zone, or to pay obligations incurred pursuant to agreements entered into to implement the project plan and reinvestment zone financing plan and achieve their purpose pursuant to Section 311.010(b), Texas Tax Code.

**SECTION EIGHT. SEVERABILITY CLAUSE.**

Should any section, subsection, sentence, clause or phrase of this Ordinance be declared unconstitutional or invalid by a court of competent jurisdiction, it is expressly provided that any and all remaining portions of this Ordinance shall remain in full force and effect. The City hereby declares that it would have passed this Ordinance, and each section, subsection, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses and phrases be declared unconstitutional or invalid.

**SECTION NINE. OPEN MEETINGS.**

It is hereby found, determined, and declared that sufficient written notice of the date, hour, place and subject of the meeting of the City Council at which this Ordinance was adopted was posted at a place convenient and readily accessible at all times to the general public at the City Hall of the City for the time required by law preceding its meeting, as required by Chapter 551 of the Texas Government Code, and that this meeting has been open to the public as required by law at all times during which this Ordinance and the subject matter hereof has been discussed, considered and formally acted upon. The City Council further ratifies, approves and confirms such written notice and the contents and posting thereof.

**SECTION TEN. EFFECTIVE DATE.**

This Ordinance shall take effect immediately upon its adoption and publication in accordance with and as provided by law.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2023; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2023, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

## *EXHIBIT A*

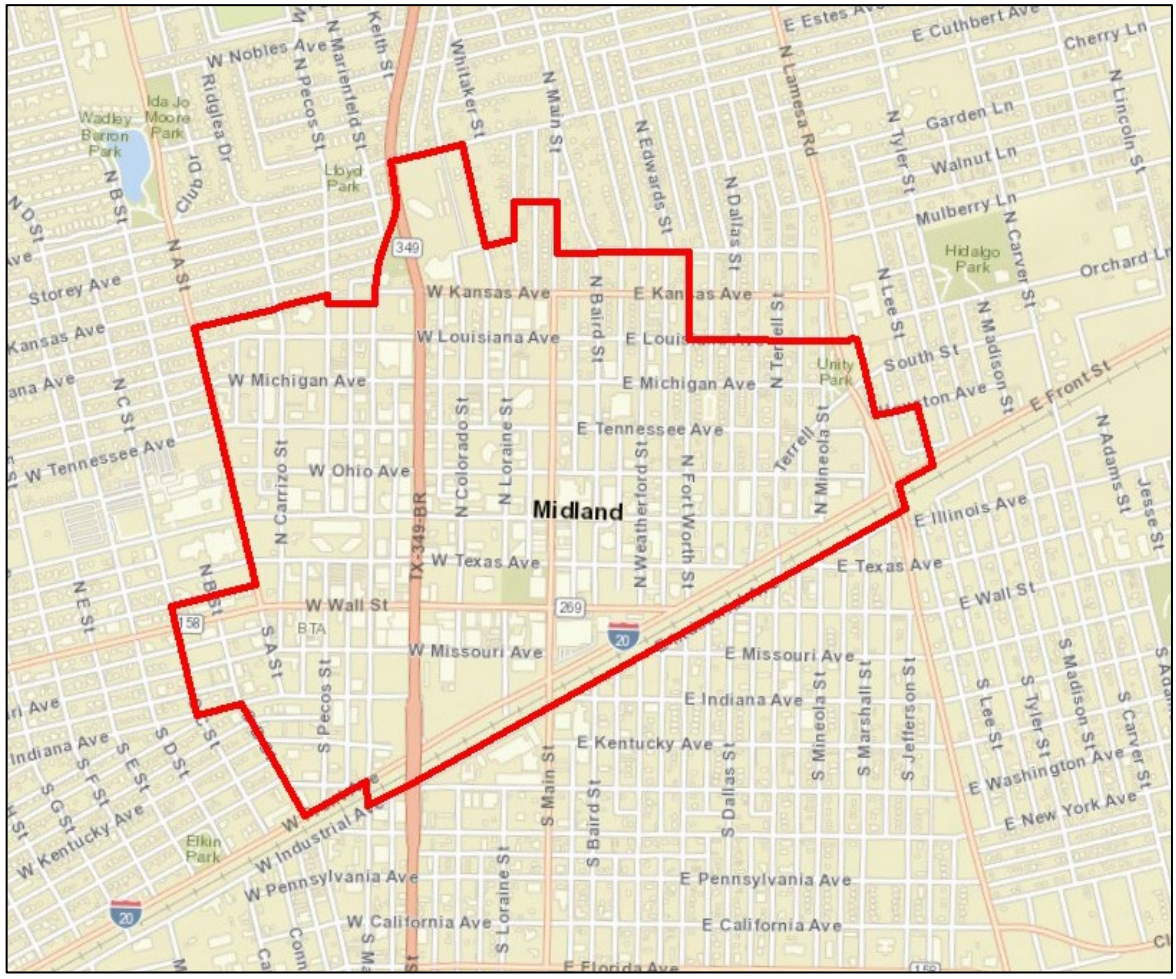
## BOUNDARY DESCRIPTION

The proposed boundaries of the Zone, being land all within the City and County of Midland, Texas, are described as follows:

Beginning at a point being the SW corner of "C" St. and Indiana Ave. proceeding north along the western right-of-way line of "C" St. to the NW corner of "C" St. and the EW alley in Block 13, West End Addition, then east along the northern boundary of said alley, across “B” St. to the EW alley in Block 14, West End Addition, then east along the northern boundary of said alley, to the western right-of way line of "A" St., then north along the western right-of-way line of "A" St. to the NW corner of "A" St. and the EW alley in Block 1, Country Club Addition, then east along the northern boundary of said alley, across Carrizo St., to the EW alley in Block 1, Elmwood Addition, then east along the northern boundary of said alley to the NW corner of said alley and Pecos St., then south along the western right-of-way line of Pecos St. to the NW corner of Pecos St. and Kansas Ave., then east along the northern right-of-way line of Kansas Ave. to the NW corner of Kansas Ave. and Marienfeld St., then north along the western right-of-way line of Marienfeld St. to the intersection of Marienfeld St. and Big Spring St., then north along the western right-of-way line of Big Spring St. to the NW corner of Big Spring St. and Cuthbert Ave., then east along the northern right-of-way line of Cuthbert Ave. to the NE corner of Cuthbert Ave. and Whitaker St, then south along the eastern right-of-way line of Whitaker St. to the NE corner of Whitaker St. and Walcott St., then east along the northern right-of-way line of Walcott St. to the western right-of-way line of Loraine St, then north along the western right-of-way line of Loraine St. to the NW corner of Loraine St. and the continuation of Walcott St., then east along the northern right-of-way line of Walcott St. to the NE corner of Walcott St. and Main St., then south along the eastern right-of-way line of Main St. to the NE corner of Main St. and the EW alley between Block 1, Richardson Addition and Block 9, Homestead Addition, then east along the northern boundary of said alley to the northern right-of-way line of Mississippi Ave. then east along said line to the NE corner of Mississippi Ave. and Fort Worth St., then south along the eastern right-of-way line of Fort Worth St. to the NE corner of Fort Worth St. and Louisiana Ave., then east along the northern right-of-way line of Louisiana Ave. to the NS alley between Lot 1, Block 20, Original Town Addition and Block 52, East Midland Addition, then south along the eastern boundary of said alley to the southern right-of-way line of South St., then west along said line to the SE corner of South St. and Lamesa Rd., then south along the eastern right-of-way line of Lamesa Rd. to the NE corner of Lamesa Rd. and Houston Ave., then east along the northern right-of-way line of Houston Ave. to the NE corner of Houston Ave. and Lee St., then south along the eastern right-of-way line of Lee St. to the SE corner of Lee St. and Front Ave., then west along the southern right-of-way line of Front Ave. to the SE corner of Front Ave. and Lamesa Rd., then south along the eastern right-of-way line of Lamesa Rd. to the SE corner of Lamesa Rd. and Industrial Ave., then west along the southern right-of-way line of Industrial Ave. to the SW corner of Industrial Ave. and Marienfeld St., then north along the western right-of-way line of Marienfeld St. to the SW corner of Marienfeld St. and Front Ave., then west along the southern right-of-way line of Front Ave. to the SW corner of Front Ave. and "B" St., then north along the western right-of-way line of "B" St. to the SW corner of "B" St. and Indiana Ave., then west along the southern right-of-way line of Indiana Ave. to the SW corner of Indiana Ave. and "C" St., being the point of beginning.

*EXHIBIT B*

**BOUNDARY MAP**




- TIRZ Boundary

***EXHIBIT C***

PRELIMINARY PROJECT PLAN AND FINANCE PLAN

# Tax Increment Reinvestment Zone #2
# City of Midland, Texas



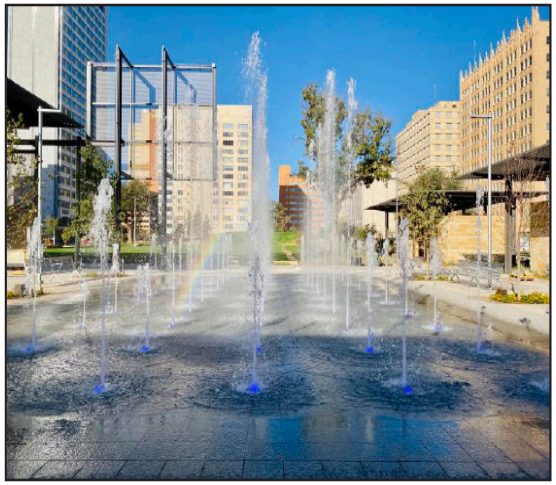
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**DISCLAIMER**

Our conclusions and recommendations are based on current market conditions and the expected performance of the national, and/or local economy and real estate market. Given that economic conditions can change and real estate markets are cyclical, it is critical to monitor the economy and real estate market continuously, and to revisit key project assumptions periodically to ensure that they are still justified.

The future is difficult to predict, particularly given that the economy and housing markets can be cyclical, as well as subject to changing consumer and market psychology. There will usually be differences between projected and actual results because events and circumstances frequently do not occur as expected, and the differences may be material.









Midland, Texas has an estimated population of 131,325 and is the county seat of Midland County. A small part of Midland is in Martin County. Midland is conveniently located in West Texas on Interstate 20 halfway between Fort Worth and El Paso. Midland is easily accessible via Midland International Air & Space Port that is serviced daily by American, Southwest, and United Airlines. Kenan Institute's American Growth Project has projected Midland, Texas, to be the fastest-growing economy among the 100 largest midsize cities in the U.S. for 2023.

Thanks to its prime location in the Permian Basin, Midland's economy has been heavily influenced by the oil and gas industry, yet this region continues to diversify across new industries each year including aerospace and distribution. Midland prides itself in having a highly skilled workforce, with nearly twice the national average of educated engineers. The regional labor pool inlcudes 253,000 professionals with the educational expertise and technical aptitude to serve in any industry.

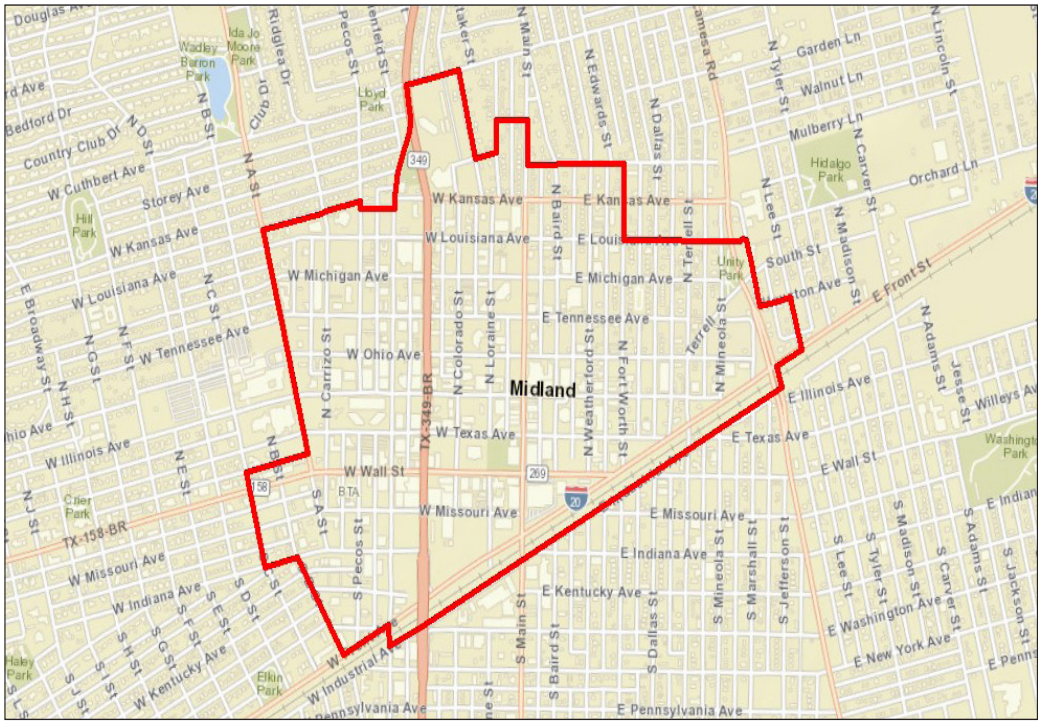
Downtown Midland is home to restaurants, bars, retail spaces, financial services, creative agencies, and arts and cultural organizations, and aims to be a progressive hub of diverse activities attracting and connecting businesses, the community, and visitors.

**Tax Increment Reinvestment Zone #2, City of Midland**

Tax Increment Financing (TIF) is a tool used to promote both new development and redevelopment within a specified geographic area. A city may designate a geographic area targeted for new development and redevelopment that would not occur but for the designation of the geographic area as a Tax Increment Reinvestment Zone (TIRZ).

On November 14, 2023, the City Council of the City of Midland, Texas (the "Council"), pursuant to Chapter 311 of the Texas Tax Code, will consider an ordinance to designate a contiguous geographic area within the City limits as Reinvestment Zone Number Two, City of Midland, Texas. The goal of Tax Increment Reinvestment Zone #2 (TIRZ #2) is to fund the construction of needed public infrastructure and to encourage private development that will yield additional tax revenue to all local taxing jurisdictions.

This preliminary project and financing plan outlines the funding of $70,726,022 in public improvements related to water, sanitary sewer, and storm water facilites, as well as street and intersection improvements, open space and park facilities, utilities and street lighting, and economic development grants. The TIRZ can fund these improvements through ad valorem participation of eligible taxing jurisdictions, including the City of Midland. Without the implementation of the TIRZ, the specified property would continue to impair the sound growth of the municipality.




- TIRZ Boundary

**Boundary Description**

TIRZ #2 consists of approximately 449 acres located within the city limits of the City of Midland. The legal description for the zone is described in detail below.

**Legal Description TIRZ #2**

Beginning at a point being the SW corner of "C" St. and Indiana Ave. proceeding north along the western right of way line of "C" St. to the NW corner of "C" St. and the EW alley in Block 13, West End Addition, then

East along the northern boundary of said alley, across "B" St. to the EW alley in Block 14, West End Addition, then

East along the northern boundary of said alley, to the western right-of way line of "A" St., then

North along the western right of way line of "A" St. to the NW corner of "A" St. and the EW alley in Block 1, Country Club Addition, then

East along the northern boundary of said alley, across Carrizo St., to the EW alley in Block 1, Elmwood Addition, then

East along the northern boundary of said alley to the NW corner of said alley and Pecos St., then

South along the western right-of-way line of Pecos St. to the NW corner of Pecos St. and Kansas Ave., then

East along the northern right of way line of Kansas Ave. to the NW corner of Kansas Ave. and Marienfeld St., then

North along the western right of way line of Marienfeld St. to the intersection of Marienfeld St. and Big Spring St., then

North along the western right of way line of Big Spring St. to the NW corner of Big Spring St. and Cuthbert Ave., then

East along the northern right of way line of Cuthbert Ave. to the NE corner of Cuthbert Ave. and Whitaker St, then

South along the eastern right of way line of Whitaker St. to the NE corner of Whitaker St. and Walcott St., then

East along the northern right of way line of Walcott St. to the western right-of-way line of Loraine St, then

North along the western right of way line of Loraine St. to the NW corner of Loraine St. and the continuation of Walcott St., then

East along the northern right of way line of Walcott St. to the NE corner of Walcott St. and Main St., then

South along the eastern right of way line of Main St. to the NE corner of Main St. and the EW alley between Block 1, Richardson Addition and Block 9, Homestead Addition, then

East along the northern boundary of said alley to the northern right of way line of Mississippi Ave., then

East along said line to the NE corner of Mississippi Ave. and Fort Worth St., then

South along the eastern right of way line of Fort Worth St. to the NE corner of Fort Worth St. and Louisiana Ave., then

East along the northern right of way line of Louisiana Ave. to the NS alley between Lot 1, Block 20, Original Town Addition and Block 52, East Midland Addition, then

South along the eastern boundary of said alley to the southern right of way line of South St., then

West along said line to the SE corner of South St. and Lamesa Rd., then

South along the eastern right of way line of Lamesa Rd. to the NE corner of Lamesa Rd. and Houston Ave., then

East along the northern right of way line of Houston Ave. to the NE corner of Houston Ave. and Lee St., then

South along the eastern right of way line of Lee St. to the SE corner of Lee St. and Front Ave., then

West along the southern right of way line of Front Ave. to the SE corner of Front Ave. and Lamesa Rd., then

South along the eastern right of way line of Lamesa Rd. to the SE corner of Lamesa Rd. and Industrial Ave., then

West along the southern right of way line of Industrial Ave. to the SW corner of Industrial Ave. and Marienfeld St., then

North along the western right of way line of Marienfeld St. to the SW corner of Marienfeld St. and Front Ave., then

West along the southern right of way line of Front Ave. to the SW corner of Front Ave. and "B" St., then

North along the western right of way line of "B" St. to the SW corner of "B" St. and Indiana Ave., then

West along the southern right of way line of Indiana Ave. to the SW corner of Indiana Ave. and "C" St., being the point of beginning.

### Land Use

The land within the zone is primarily developed with commercial uses that are well positioned for redevelopment. There are also various surface parking lots that are well positioned to be utilized for new development.

### Method of Relocating Persons to be Displaced

It is not anticipated that any persons will be displaced or need to be relocated as result of the implementation of the TIRZ.

### Current Ownership

There are currently 728 parcels within Tax Increment Reinvestment Zone #2, some of which are owned by the City of Midland. The 2023 estimated taxable base value of the property within the TIRZ is $683,794,052. The 2023 base value will need to be verified by Midland County Appraisal District when the final values are available. For further details of parcels included within the TIRZ see **Appendix A**.

### Zoning

The property may need to be rezoned to accomodate any future development. It is not anticipated there will be any changes to the City of Midland zoning ordinance, master plan, building codes, subdivision rules and regulations or other municipal ordinances as a result of the TIRZ.

**Anticipated Development**

The land within the zone is well positioned for future development and redevelopment, with opportunities to adapt existing buildings into new uses, including the conversion of office to multifamily. Adaptive reuse includes the repurposing of any vacant or underused building for a new and better use. The ongoing adoption of a remote or hybrid work model is adding office space to the existing inventory of office buildings with high vacancy rates. At the same time, the cost of single-family homes is increasing, creating demand for rental housing. RealPage, a leading global provider of software and data analytics to the real estate industry, reported in May of 2023 that, "The Midland/Odessa apartment market claimed the nation's most impressive revenue growth during the past year. Revenues were up 17.9% in the year-ending April in this market with less than 28,000 apartment units, according to data from RealPage Market Analytics. Most of that increase was on the rent growth side of the equation, as effective asking prices were up 17.2% year-over-year as of April. Meanwhile, occupancy climbed 70 basis points. Both of those annual increases were also nation-leading data points. Inspiring revenue growth, Midland/Odessa ranked in the top 10 nationally for annual apartment demand, absorbing over 1,350 units in the year-ending 1st quarter." Based on market trends of adaptive reuse in Downtown areas throughout the country, high demand for multifamily, and decreasing demand for office, DPED projects additional multifamily units will be added within the TIRZ during the term of the TIRZ, both through adaptive reuse and new construction. Retail demand to support the increase in population downtown is anticipated to increase, leading to the occupancy of existing vacant retail spaces, adaptive reuse of existing underutilized office space, and limited new construction.

According to the Plasencia Group, a national hospitality sales, investment consulting and advisory firm with offices across the country, the Permian Basin oil patch in West Texas, headlined by the cities of Midland and Odessa, is now thriving in terms of RevPAR performance. It reports that Midland-Odessa is the top performing market in terms of RevPAR growth as of June 2023. Based on these positive market trends, and known development plans shared by City leadership, DPED projects that hotel projects will be developed during the term of the TIRZ.

The table below provides an overview of the scope and timing of potential development that DPED projects could occur during the life of the TIRZ, based on market trends and input from the Development community and City leadership. It is anticipated that the development that occurs within the TIRZ could be financed in part by incremental real property tax generated within the TIRZ.

| | Projected Completion Date | Units/SF | RP Taxable Value per Unit/SF | Incremental Value |
|---|---|---|---|---|
| **TIRZ #2** | | | | |
| Hotel | 2025 | 80 | $ 100,000 | $ 8,000,000 |
| Hotel | 2026 | 135 | $ 100,000 | $ 13,500,000 |
| Multifamily | 2027 | 175 | $ 150,000 | $ 26,250,000 |
| Multifamily - Adaptive Reuse | 2027 | 50 | $ 90,000 | $ 4,500,000 |
| Retail | 2028 | 2,500 | $ 500 | $ 1,250,000 |
| Multifamily | 2029 | 175 | $ 150,000 | $ 26,250,000 |
| Multifamily - Adaptive Reuse | 2029 | 50 | $ 90,000 | $ 4,500,000 |
| Retail | 2030 | 2,500 | $ 500 | $ 1,250,000 |
| **Total** | | | | |

**Project Costs of the Zone**

There are a number of improvements within Tax Increment Reinvestment Zone #2 that will be financed by in part by incremental real property tax generated within the TIRZ.

| **Proposed Project Costs - TIRZ #2** | | |
|---|---|---|
| **Public Utilities** | **$ 9,901,643** | **14.0%** |
| *Water Facilities and Improvements, Sanitary Sewer Facilities and Improvements, Storm Water Facilities and Improvements* | | |
| **Parking and Transit Improvements** | **$ 17,681,506** | **25.0%** |
| **Street and Intersection Improvements** | **$ 7,072,602** | **10.0%** |
| **Pedestrian Enhancements** | **$ 10,608,903** | **15.0%** |
| *Streetscape, lighting, public art, and other amenities that enhance the pedestrian experience* | | |
| **Open Space, Park and Recreation Facilities and Improvements, Public Facilities and Improvements** | **$ 7,072,602** | **10.0%** |
| **Economic Development Grants** | **$ 17,681,506** | **25.0%** |
| **Administrative Costs** | **$ 707,260** | **1.0%** |
| Total | $ 70,726,022 | 100.0% |

The categories listed in the table above outline various public improvements, and are meant to include all projects eligible under Chapter 311, Section 311.002 of the Texas Tax Code.The costs illustrated in the table above are estimates and may be revised. Savings from one line item may be applied to a cost increase in another line item. The $70,726,022 project cost total amount shall be considered a cap on expenditures that shall not be exceeded without an amendment to the project and financing plan.

Economic Development Grants may include grants, loans, and services for public and private development. Chapter 380 of the Local Government Code grants municipalities in Texas the authority to offer grants and loans of public funds to stimulate economic development. Section 311.010 (h) of the Texas Tax Code details the authority of Chapter 380 within a project and financing plan and limits the aggregate amount not to exceed the amount of tax increment produced by the municipality and paid into the tax increment fund for the zone for activities that benefit the zone and simulate business and commercial activity in the zone.

The project costs are anticipated to be incurred over the term of the TIRZ, subject to demand for development driven by market conditions. It is anticipated that the individual TIRZ project costs will be evaluated on a case-by-case basis consistent with Chapter 311, Section 311.002, and brought forward to the TIRZ Board and City Council for consideration

Chapter 311 of the Texas Tax Code

Sec. 311.002.

(1) "Project costs" means the expenditures made or estimated to be made and monetary obligations incurred or estimated to be incurred by the municipality or county designating a reinvestment zone that are listed in the project plan as costs of public works, public improvements, programs, or other projects benefiting the zone, plus other costs incidental to those expenditures and obligations. "Project costs" include:

(A) capital costs, including the actual costs of the acquisition and construction of public works, public improvements, new buildings, structures, and fixtures; the actual costs of the acquisition, demolition, alteration, remodeling, repair, or reconstruction of existing buildings, structures, and fixtures; the actual costs of the remediation of conditions that contaminate public or private land or buildings; the actual costs of the preservation of the facade of a public or private building; the actual costs of the demolition of public or private buildings; and the actual costs of the acquisition of land and equipment and the clearing and grading of land;

(B) financing costs, including all interest paid to holders of evidences of indebtedness or other obligations issued to pay for project costs and any premium paid over the principal amount of the obligations because of the redemption of the obligations before maturity;

(C) real property assembly costs;

(D) professional service costs, including those incurred for architectural, planning, engineering, and legal advice and services;

(E) imputed administrative costs, including reasonable charges for the time spent by employees of the municipality or county in connection with the implementation of a project plan;

(F) relocation costs;

(G) organizational costs, including the costs of conducting environmental impact studies or other studies, the cost of publicizing the creation of the zone, and the cost of implementing the project plan for the zone;

(H) interest before and during construction and for one year after completion of construction, whether or not capitalized;

(I) the cost of operating the reinvestment zone and project facilities;

(J) the amount of any contributions made by the municipality or county from general revenue for the implementation of the project plan;

(K) the costs of school buildings, other educational buildings, other educational facilities, or other buildings owned by or on behalf of a school district, community college district, or other political subdivision of this state; and

(L) payments made at the discretion of the governing body of the municipality or county that the governing body finds necessary or convenient to the creation of the zone or to the implementation of the project plans for the zone.

**Public Utilities includes but is not limited to:**

**Water Facilities and Improvements:** This category includes TIRZ eligible expenditures for design, engineering and construction of water facilities and improvements that support the development and redevelopment of the downtown TIRZ.

**Sanitary Sewer Facilities and Improvements:** This category includes TIRZ eligible expenditures for design, engineering and construction of structures or systems designed for the collection, transmission, treatment, or disposal of sewage, and includes trunk mains, interceptors, treatment plants and disposal systems.

**Storm Water Facilities and Improvements:** The downtown TIF district has an aging infrastructure, making proper utility drainage an important component of the project plan. Utility drainage encompasses the physical provisions to accommodate and regulate stormwater runoff to preclude excessive erosion and sedimentation and to control and regulate the rate of flow. Facilities/systems can include natural features and conduits, channels, ditches, swales, pipes, detention devices or other devices designed or intended to carry, direct, detain or otherwise control stormwater.

**Parking and Transit Improvements:** Parking structures, whether newly constructed or existing, may be utilized to encourage denser development and support public access to commercial, residential, and retail developments at future mixed-use or transit-oriented developments. Parking includes, but is not limited to, parking garages; surface parking; parking lighting; parking signage and wayfinding, parking meters/ kiosks and electrical charging stations. The goal is to create compact, walkable, pedestrian-centered developments to enhance and act as a catalyst to spur additional development and redevelopment in the district.

**Street and Intersection Improvements and Pedestrian Enhancements:** The TIRZ will encourage the construction of multi-functional, pedestrian-oriented, aesthetically-pleasing, safe, and inviting street for residents and visitors. Creating a pleasing public realm supports and encourages a wide variety of new development and investment. Elements of complete streets include the building to building improvements which may encompass: sidewalks, shared travel lanes (e.g. bus and bicycle), parallel and angled parking, pedestrian crosswalks, pedestrian and emergency bulb (American with Disabilities Act (ADA) accessibility), awnings, street improvements, planters, pedestrian street furniture, bike racks and pedestrian lighting. This includes public art and other amenities that enhance the pedestrian experience.

**Open Space, Park and Recreation Facilities and Improvements, Public Facilities and Improvements:** Public open space is an important amenity in a Downtown area. Park amenities and open spaces communicate the identity of the place and enhance property values. The TIRZ should encourage the identification and set aside of open space and/or places for public amenities, particularly in the vicinity of catalystic investment areas. In accordance with Sec. 311.008(4B), TIRZ funds may be used to acquire, construct, reconstruct, or install public works, facilities, or sites or other public improvements. Costs of design, improvements, and land acquisition are TIRZ eligible expenses and can be funded from this category.

**Economic Development Grants:** This may include grants, loans, and services for public and private development. Eligible TIRZ project costs are not limited to public uses and may also include projects that involve: historic preservation, demolition, environmental remediation and economic development grants. Chapter 380 of the Local Government Code grants municipalities in Texas the authority to offer grants and loans of public funds to stimulate economic development. Section 311.010 (h) of the Texas Tax Code details the authority of Chapter 380 within a project and financing plan and limits the aggregate amount not to exceed the amount of tax increment produced by the municipality and paid into the tax increment fund for the zone for activities that benefit the zone and simulate business and commercial activity in the zone.

**Administrative Costs:** Administrative costs, including reasonable charges for the time spent by employees of the City, to assist with implementation within the TIRZ will be eligible for reimbursement as project costs, upon approval by the Board of Directors and in connection with the implementation of the Project and Financing Plan. Other related administrative expenses including legal fees and consulting fees of the City, management expenses, meeting expenditures and equipment are included in this category.

### Method of Financing

To fund the public improvements outlined on the previous page, the City of Midland will contribute 100% of the real property increment within the Zone. Subject to separate yet to be negotiated interlocal agreements, Midland County, Midland Hospital, and Midland College may contribute up to 100% of the real property increment within the Zone. Subject to a separate yet to be negotiated interlocal agreement, Midland ISD may contribute up to 100% of the real property increment generated from the Interest and Sinking (I&S) portion of its tax rate within the Zone.

### Debt Service

It is not anticipated at this time that the TIRZ will incur any bonded indebtedness.

### Economic Feasibility Study

A taxable value analysis was developed as part of the project and financing plan to determine the economic feasibility of the project. The study examined the expected tax revenue the TIRZ would receive based on the previously outlined developments. A summary overview of the anticipated development square footages, the anticipated sales per square foot and the anticipated taxable value per square foot can be found on the following pages.

The following pages show the estimated captured appraised value of the zone during each year of its existence and the net benefits of the zone to each of the local taxing jurisdictions as well as the method of financing and debt service.

Utilizing the information outlined in this feasibility study, DPED has found that the TIRZ is economically feasible and will provide the City and other taxing jurisdictions with economic benefits that would not occur without its implementation.

| TIRZ #2 | Real Property Tax - 2023 Rates | | Participation | |
|---|---|---|---|---|
| | City of Midland | 0.35066200 | 100% | 0.3506620 |
| | Midland County | 0.12040000 | 0% | 0.0000000 |
| | Midland Hospital | 0.07312000 | 0% | 0.0000000 |
| | Midland College | 0.07741000 | 0% | 0.0000000 |
| | Midland ISD | 0.87950000 | 0% | 0.0000000 |
| | | **1.50109200** | | **0.3506620** |

| | Personal Property Tax | | Participation | |
|---|---|---|---|---|
| | City of Midland | 0.35066200 | 0% | 0.0000000 |
| | Midland County | 0.12040000 | 0% | 0.0000000 |
| | Midland Hospital | 0.07312000 | 0% | 0.0000000 |
| | Midland College | 0.07741000 | 0% | 0.0000000 |
| | Midland ISD | 0.87950000 | 0% | 0.0000000 |
| | | **1.50109200** | | **0.0000000** |

| | Sales Tax | | Participation | |
|---|---|---|---|---|
| | City of Midland | 0.01250000 | 0% | 0.0000000 |
| | Midland County | 0.00500000 | 0% | 0.0000000 |
| | | **0.01750000** | | **0.00000000** |

▶ ***INPUT***

| | |
|---|---|
| INFLATION RATE | 3.50% |

| | |
|---|---|
| DISCOUNT RATE | 6.00% |

| REAL PROPERTY TAX | | PARTICIPATION | |
|---|---|---|---|
| City of Midland | 0.35066200 | 100% | 0.3506620 |
| Midland County | 0.12040000 | 0% | 0.0000000 |
| Midland Hospital | 0.07312000 | 0% | 0.0000000 |
| Midland College | 0.07741000 | 0% | 0.0000000 |
| Midland ISD | 0.87950000 | 0% | 0.0000000 |
| | 1.50109200 | | 0.3506620 |

| PERSONAL PROPERTY TAX | | PARTICIPATION | |
|---|---|---|---|
| City of Midland | 0.35066200 | 0% | 0.0000000 |
| Midland County | 0.12040000 | 0% | 0.0000000 |
| Midland Hospital | 0.07312000 | 0% | 0.0000000 |
| Midland College | 0.07741000 | 0% | 0.0000000 |
| Midland ISD | 0.87950000 | 0% | 0.0000000 |
| | 1.50109200 | | 0.0000000 |

| | | | |
|---|---|---|---|
| City of Midland | 0.0125000 | 0.00% | 0.0000000 |
| Midland County | 0.0050000 | 0.00% | 0.0000000 |

| | | AREA | REAL PROPERTY | | PERSONAL PROPERTY | | SALES | |
|---|---|---|---|---|---|---|---|---|
| | Year | SF/UNITS | $ / SF | TAX VALUE | $ / SF | TAX VALUE | $ / SF | TAX VALUE |
| Hotel | 2025 | 80 | $ 100,000.00 | $ 8,000,000 | $ - | $ - | $ - | $ - |
| Hotel | 2026 | 135 | $ 100,000.00 | $ 13,500,000 | $ - | $ - | $ - | $ - |
| Multifamily | 2027 | 175 | $ 150,000.00 | $ 26,250,000 | $ - | $ - | $ - | $ - |
| Multifamily - Adaptive Reuse | 2027 | 50 | $ 90,000.00 | $ 4,500,000 | $ - | $ - | $ - | $ - |
| Retail | 2028 | 2,500 | $ 500.00 | $ 1,250,000 | $ - | $ - | $ 500.00 | $ 1,250,000 |
| Multifamily | 2029 | 175 | $ 150,000.00 | $ 26,250,000 | $ - | $ - | $ - | $ - |
| Multifamily - Adaptive Reuse | 2029 | 50 | $ 90,000.00 | $ 4,500,000 | $ - | $ - | $ - | $ - |
| Retail | 2030 | 2,500 | $ 500.00 | $ 1,250,000 | $ - | $ - | $ 500.00 | $ 1,250,000 |
| | *TOTAL* | 5,665 | | 85,500,000 | | - | | 2,500,000 |

▶ ***OUTPUT***

| TOTAL TAX REVENUE | | TOTAL | | REAL PROPERTY | | PERSONAL PROPERTY | | SALES | |
|---|---|---|---|---|---|---|---|---|---|
| City of Midland | *23.4%* | $ 14,546,699 | = | $ 14,546,699 | + | $ - | + | $ - |
| Midland County | *8.0%* | $ 4,994,617 | = | $ 4,994,617 | + | $ - | + | $ - |
| Midland Hospital | *4.9%* | $ 3,033,276 | = | $ 3,033,276 | + | $ - | + | $ - |
| Midland College | *5.2%* | $ 3,211,240 | = | $ 3,211,240 | + | $ - | + | $ - |
| Midland ISD | *58.6%* | $ 36,484,768 | = | $ 36,484,768 | + | $ - | + | $ - |
| | *100.0%* | 62,270,600 | | $ 62,270,600 | | $ - | | $ - |
| | | *100.0%* | | *100.0%* | | *0.0%* | | *0.0%* |

| TOTAL PARTICIPATION | | TOTAL | | REAL PROPERTY | | PERSONAL PROPERTY | | SALES | |
|---|---|---|---|---|---|---|---|---|---|
| City of Midland | *100.0%* | $ 14,546,699 | = | $ 14,546,699 | + | $ - | + | $ - |
| Midland County | *0.0%* | $ - | = | $ - | + | $ - | + | $ - |
| Midland Hospital | *0.0%* | $ - | = | $ - | + | $ - | + | $ - |
| Midland College | *0.0%* | $ - | = | $ - | + | $ - | + | $ - |
| Midland ISD | *0.0%* | $ - | = | $ - | + | $ - | + | $ - |
| | *100.0%* | $ 14,546,699 | | $ 14,546,699 | | $ - | | $ - |
| | | *100.0%* | | *100.0%* | | *0.0%* | | *0.0%* |

| NET BENEFIT | | TOTAL | | REAL PROPERTY | | PERSONAL PROPERTY | | SALES | |
|---|---|---|---|---|---|---|---|---|---|
| City of Midland | *0.0%* | $ - | = | $ - | + | $ - | + | $ - |
| Midland County | *10.5%* | $ 4,994,617 | = | $ 4,994,617 | + | $ - | + | $ - |
| Midland Hospital | *6.4%* | $ 3,033,276 | = | $ 3,033,276 | + | $ - | + | $ - |
| Midland College | *6.7%* | $ 3,211,240 | = | $ 3,211,240 | + | $ - | + | $ - |
| Midland ISD | *76.4%* | $ 36,484,768 | = | $ 36,484,768 | + | $ - | + | $ - |
| | *100.0%* | $ 47,723,901 | | $ 47,723,901 | | $ - | | $ - |
| | | *100.0%* | | *100.0%* | | *0.0%* | | *0.0%* |

## Tax Revenue Projections

| Calendar Year | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TOTAL TAX REVENUE** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **REAL PROPERTY** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **2030** | **2031** | **2032** | **2033** | **2034** | **2035** | **2036** | **2037** | **2038** | **2039** | **2040** | **2041** | **2042** | **2043** | **2044** | **2045** | **2046** | **2047** | **2048** | **2049** | **2050** | **2051** | **2052** | **2053** |
| **Hotel** Taxable Value Per Unit | 100,000 | 103,500 | 107,123 | 110,872 | 114,752 | 118,769 | 122,926 | 127,228 | 131,681 | 136,290 | 141,060 | 145,997 | 151,107 | 156,396 | 161,869 | 167,535 | 173,399 | 179,468 | 185,749 | 192,250 | 198,979 | 205,943 | 213,151 | 220,611 | 228,333 | 236,324 | 244,596 | 253,157 | 262,017 | 271,188 | 280,679 |
| Cumulative Units | - | - | - | 80 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 |
| **Hotel Taxable Value** | - | - | - | **8,869,743** | **24,671,745** | **25,535,256** | **26,428,990** | **27,354,004** | **28,311,394** | **29,302,293** | **30,327,873** | **31,389,349** | **32,487,976** | **33,625,055** | **34,801,932** | **36,020,000** | **37,280,700** | **38,585,524** | **39,936,018** | **41,333,778** | **42,780,491** | **44,277,777** | **45,827,499** | **47,431,461** | **49,091,562** | **50,809,767** | **52,588,109** | **54,428,693** | **56,333,697** | **58,305,276** | **60,346,065** |
| **Multifamily** Taxable Value Per Unit | 150000 | 155,250 | 160,684 | 166,308 | 172,128 | 178,153 | 184,388 | 190,842 | 197,521 | 204,435 | 211,590 | 218,995 | 226,660 | 234,593 | 242,804 | 251,302 | 260,098 | 269,201 | 278,623 | 288,375 | 298,468 | 308,915 | 319,727 | 330,917 | 342,499 | 354,487 | 366,894 | 379,735 | 393,026 | 406,782 | 421,019 |
| Cumulative Units | - | - | - | - | - | 175 | 175 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 |
| **Multifamily Taxable Value** | - | - | - | - | - | **31,176,766** | **32,267,952** | **66,794,661** | **69,132,474** | **71,552,111** | **74,056,435** | **76,648,410** | **79,331,105** | **82,107,693** | **84,981,462** | **87,955,814** | **91,034,267** | **94,220,466** | **97,518,183** | **100,931,319** | **104,463,915** | **108,120,152** | **111,904,358** | **115,821,010** | **119,874,746** | **124,070,362** | **128,412,824** | **132,907,273** | **137,559,028** | **142,373,594** | **147,356,669** |
| **Multifamily - Adaptive Reuse** Taxable Value Per Unit | 90,000 | 93,150 | 96,410 | 99,785 | 103,277 | 106,892 | 110,633 | 114,505 | 118,513 | 122,661 | 126,954 | 131,397 | 135,996 | 140,756 | 145,683 | 150,781 | 156,059 | 161,521 | 167,174 | 173,025 | 179,081 | 185,349 | 191,836 | 198,550 | 205,500 | 212,692 | 220,136 | 227,841 | 235,815 | 244,069 | 252,611 |
| Cumulative Units | - | - | - | - | - | 50 | 50 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| **Multifamily Taxable Value** | - | - | - | - | - | **5,344,588** | **5,531,649** | **11,450,513** | **11,851,281** | **12,266,076** | **12,695,389** | **13,139,727** | **13,599,618** | **14,075,605** | **14,568,251** | **15,078,139** | **15,605,874** | **16,152,080** | **16,717,403** | **17,302,512** | **17,908,100** | **18,534,883** | **19,183,604** | **19,855,030** | **20,549,956** | **21,269,205** | **22,013,627** | **22,784,104** | **23,581,548** | **24,406,902** | **25,261,143** |
| **Retail** Taxable Value Per SF | 500 | 518 | 536 | 554 | 574 | 594 | 615 | 636 | 658 | 681 | 705 | 730 | 756 | 782 | 809 | 838 | 867 | 897 | 929 | 961 | 995 | 1,030 | 1,066 | 1,103 | 1,142 | 1,182 | 1,223 | 1,266 | 1,310 | 1,356 | 1,403 |
| Cumulative SF | - | - | - | - | - | - | 2,500 | 2,500 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 |
| **Multifamily Taxable Value** | - | - | - | - | - | - | **1,536,569** | **1,590,349** | **3,292,023** | **3,407,243** | **3,526,497** | **3,649,924** | **3,777,672** | **3,909,890** | **4,046,736** | **4,188,372** | **4,334,965** | **4,486,689** | **4,643,723** | **4,806,253** | **4,974,472** | **5,148,579** | **5,328,779** | **5,515,286** | **5,708,321** | **5,908,112** | **6,114,896** | **6,328,918** | **6,550,430** | **6,779,695** | **7,016,984** |
| *Taxable Value* | - | - | - | **8,869,743** | **24,671,745** | **62,056,609** | **65,765,160** | **107,189,528** | **112,587,173** | **116,527,724** | **120,606,194** | **124,827,411** | **129,196,370** | **133,718,243** | **138,398,382** | **143,242,325** | **148,255,806** | **153,444,760** | **158,815,326** | **164,373,863** | **170,126,948** | **176,081,391** | **182,244,240** | **188,622,788** | **195,224,586** | **202,057,446** | **209,129,457** | **216,448,988** | **224,024,702** | **231,865,567** | **239,980,852** |
| PV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | GROSS |
| City of Midland **5,106,573** | - | - | - | 31,103 | 86,514 | 217,609 | 230,613 | 375,873 | 394,800 | 408,618 | 422,920 | 437,722 | 453,043 | 468,899 | 485,311 | 502,296 | 519,877 | 538,072 | 556,905 | 576,397 | 596,571 | 617,451 | 639,061 | 661,428 | 684,578 | 708,539 | 733,338 | 759,004 | 785,570 | 813,064 | 841,522 | **14,546,699** |
| Midland County **1,753,345** | - | - | - | 10,679 | 29,705 | 74,716 | 79,181 | 129,056 | 135,555 | 140,299 | 145,210 | 150,292 | 155,552 | 160,997 | 166,632 | 172,464 | 178,500 | 184,747 | 191,214 | 197,906 | 204,833 | 212,002 | 219,422 | 227,102 | 235,050 | 243,277 | 251,792 | 260,605 | 269,726 | 279,166 | 288,937 | **4,994,617** |
| Midland Hospital **1,064,822** | - | - | - | 6,486 | 18,040 | 45,376 | 48,087 | 78,377 | 82,324 | 85,205 | 88,187 | 91,274 | 94,468 | 97,775 | 101,197 | 104,739 | 108,405 | 112,199 | 116,126 | 120,190 | 124,397 | 128,751 | 133,257 | 137,921 | 142,748 | 147,744 | 152,915 | 158,267 | 163,807 | 169,540 | 175,474 | **3,033,276** |
| Midland College **1,127,296** | - | - | - | 6,866 | 19,098 | 48,038 | 50,909 | 82,975 | 87,154 | 90,204 | 93,361 | 96,629 | 100,011 | 103,511 | 107,134 | 110,884 | 114,765 | 118,782 | 122,939 | 127,242 | 131,695 | 136,305 | 141,075 | 146,013 | 151,123 | 156,413 | 161,887 | 167,553 | 173,418 | 179,487 | 185,769 | **3,211,240** |
| Midland ISD **12,807,864** | - | - | - | 78,009 | 216,988 | 545,788 | 578,405 | 942,732 | 990,204 | 1,024,861 | 1,060,731 | 1,097,857 | 1,136,282 | 1,176,052 | 1,217,214 | 1,259,816 | 1,303,910 | 1,349,547 | 1,396,781 | 1,445,668 | 1,496,267 | 1,548,636 | 1,602,838 | 1,658,937 | 1,717,000 | 1,777,095 | 1,839,294 | 1,903,669 | 1,970,297 | 2,039,258 | 2,110,632 | **36,484,768** |
| *Total* **21,859,901** | - | - | - | **133,143** | **370,346** | **931,527** | **987,196** | **1,609,013** | **1,690,037** | **1,749,188** | **1,810,410** | **1,873,774** | **1,939,356** | **2,007,234** | **2,077,487** | **2,150,199** | **2,225,456** | **2,303,347** | **2,383,964** | **2,467,403** | **2,553,762** | **2,643,144** | **2,735,654** | **2,831,402** | **2,930,501** | **3,033,068** | **3,139,226** | **3,249,098** | **3,362,817** | **3,480,515** | **3,602,334** | **62,270,600** |
| ***PERSONAL PROPERTY*** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **2030** | **2031** | **2032** | **2033** | **2034** | **2035** | **2036** | **2037** | **2038** | **2039** | **2040** | **2041** | **2042** | **2043** | **2044** | **2045** | **2046** | **2047** | **2048** | **2049** | **2050** | **2051** | **2052** | **2053** |
| Taxable Value Per SF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cumulative SF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Taxable Value* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | GROSS |
| City of Midland - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Midland County - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Midland Hospital - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Midland College - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Midland ISD - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *Total* - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ***SALES TAX*** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **2030** | **2031** | **2032** | **2033** | **2034** | **2035** | **2036** | **2037** | **2038** | **2039** | **2040** | **2041** | **2042** | **2043** | **2044** | **2045** | **2046** | **2047** | **2048** | **2049** | **2050** | **2051** | **2052** | **2053** |
| Sales Per SF | 500 | 518 | 536 | 554 | 574 | 594 | 615 | 636 | 658 | 681 | 705 | 730 | 756 | 782 | 809 | 838 | 867 | 897 | 929 | 961 | 995 | 1,030 | 1,066 | 1,103 | 1,142 | 1,182 | 1,223 | 1,266 | 1,310 | 1,356 | 1,403 |
| Cumulative SF | - | - | - | - | - | - | 2,500 | 2,500 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 |
| *Taxable Value* | - | - | - | - | - | - | **1,536,569** | **1,590,349** | **3,292,023** | **3,407,243** | **3,526,497** | **3,649,924** | **3,777,672** | **3,909,890** | **4,046,736** | **4,188,372** | **4,334,965** | **4,486,689** | **4,643,723** | **4,806,253** | **4,974,472** | **5,148,579** | **5,328,779** | **5,515,286** | **5,708,321** | **5,908,112** | **6,114,896** | **6,328,918** | **6,550,430** | **6,779,695** | **7,016,984** |
| GROSS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City of Midland **1,457,142** | - | - | - | - | - | - | 19,207 | 19,879 | 41,150 | 42,591 | 44,081 | 45,624 | 47,221 | 48,874 | 50,584 | 52,355 | 54,187 | 56,084 | 58,047 | 60,078 | 62,181 | 64,357 | 66,610 | 68,941 | 71,354 | 73,851 | 76,436 | 79,111 | 81,880 | 84,746 | 87,712 | **1,457,142** |
| Midland County **582,857** | - | - | - | - | - | - | 7,683 | 7,952 | 16,460 | 17,036 | 17,632 | 18,250 | 18,888 | 19,549 | 20,234 | 20,942 | 21,675 | 22,433 | 23,219 | 24,031 | 24,872 | 25,743 | 26,644 | 27,576 | 28,542 | 29,541 | 30,574 | 31,645 | 32,752 | 33,898 | 35,085 | **582,857** |
| PV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Total* **584,899** | - | - | - | - | - | - | **26,890** | **27,831** | **57,610** | **59,627** | **61,714** | **63,874** | **66,109** | **68,423** | **70,818** | **73,297** | **75,862** | **78,517** | **81,265** | **84,109** | **87,053** | **90,100** | **93,254** | **96,518** | **99,896** | **103,392** | **107,011** | **110,756** | **114,633** | **118,645** | **122,797** | **2,039,999** |
| ***SUMMARY*** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **2030** | **2031** | **2032** | **2033** | **2034** | **2035** | **2036** | **2037** | **2038** | **2039** | **2040** | **2041** | **2042** | **2043** | **2044** | **2045** | **2046** | **2047** | **2048** | **2049** | **2050** | **2051** | **2052** | **2053** |
| PV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | GROSS |
| City of Midland **5,595,782** | - | - | - | 31,103 | 86,514 | 217,609 | 249,821 | 395,752 | 435,951 | 451,209 | 467,001 | 483,346 | 500,263 | 517,773 | 535,895 | 554,651 | 574,064 | 594,156 | 614,952 | 636,475 | 658,751 | 681,808 | 705,671 | 730,370 | 755,932 | 782,390 | 809,774 | 838,116 | 867,450 | 897,811 | 929,234 | **16,003,841** |
| Midland County **1,949,028** | - | - | - | 10,679 | 29,705 | 74,716 | 86,864 | 137,008 | 152,015 | 157,336 | 162,842 | 168,542 | 174,441 | 180,546 | 186,865 | 193,406 | 200,175 | 207,181 | 214,432 | 221,937 | 229,705 | 237,745 | 246,066 | 254,678 | 263,592 | 272,818 | 282,366 | 292,249 | 302,478 | 313,065 | 324,022 | **5,577,474** |
| Midland Hospital **1,064,822** | - | - | - | 6,486 | 18,040 | 45,376 | 48,087 | 78,377 | 82,324 | 85,205 | 88,187 | 91,274 | 94,468 | 97,775 | 101,197 | 104,739 | 108,405 | 112,199 | 116,126 | 120,190 | 124,397 | 128,751 | 133,257 | 137,921 | 142,748 | 147,744 | 152,915 | 158,267 | 163,807 | 169,540 | 175,474 | **3,033,276** |
| Midland College **1,127,296** | - | - | - | 6,866 | 19,098 | 48,038 | 50,909 | 82,975 | 87,154 | 90,204 | 93,361 | 96,629 | 100,011 | 103,511 | 107,134 | 110,884 | 114,765 | 118,782 | 122,939 | 127,242 | 131,695 | 136,305 | 141,075 | 146,013 | 151,123 | 156,413 | 161,887 | 167,553 | 173,418 | 179,487 | 185,769 | **3,211,240** |
| Midland ISD **12,807,864** | - | - | - | 78,009 | 216,988 | 545,788 | 578,405 | 942,732 | 990,204 | 1,024,861 | 1,060,731 | 1,097,857 | 1,136,282 | 1,176,052 | 1,217,214 | 1,259,816 | 1,303,910 | 1,349,547 | 1,396,781 | 1,445,668 | 1,496,267 | 1,548,636 | 1,602,838 | 1,658,937 | 1,717,000 | 1,777,095 | 1,839,294 | 1,903,669 | 1,970,297 | 2,039,258 | 2,110,632 | **36,484,768** |
| *Total* **22,544,792** | - | - | - | **133,143** | **370,346** | **931,527** | **1,014,086** | **1,636,845** | **1,747,647** | **1,808,815** | **1,872,124** | **1,937,648** | **2,005,466** | **2,075,657** | **2,148,305** | **2,223,496** | **2,301,318** | **2,381,864** | **2,465,229** | **2,551,512** | **2,640,815** | **2,733,244** | **2,828,907** | **2,927,919** | **3,030,396** | **3,136,460** | **3,246,236** | **3,359,855** | **3,477,449** | **3,599,160** | **3,725,131** | **64,310,599** |

## PARTICIPATION

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***REAL PROPERTY*** | *Taxable Value* | - | - | - | 8,869,743 | 24,671,745 | 62,056,609 | 65,765,160 | 107,189,528 | 112,587,173 | 116,527,724 | 120,606,194 | 124,827,411 | 129,196,370 | 133,718,243 | 138,398,382 | 143,242,325 | 148,255,806 | 153,444,760 | 158,815,326 | 164,373,863 | 170,126,948 | 176,081,391 | 182,244,240 | 188,622,788 | 195,224,586 | 202,057,446 | 209,129,457 | 216,448,988 | 224,024,702 | 231,865,567 | 239,980,862 |
| PV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | GROSS |
| City of Midland **5,106,573** | - | - | - | 31,103 | 86,514 | 217,609 | 230,613 | 375,873 | 394,800 | 408,618 | 422,920 | 437,722 | 453,043 | 468,899 | 485,311 | 502,296 | 519,877 | 538,072 | 556,905 | 576,397 | 596,571 | 617,451 | 639,061 | 661,428 | 684,578 | 708,539 | 733,338 | 759,004 | 785,570 | 813,064 | 841,522 | **14,546,699** |
| Midland County - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Midland Hospital - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Midland College - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Midland ISD - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *Total* **5,106,573** | - | - | - | **31,103** | **86,514** | **217,609** | **230,613** | **375,873** | **394,800** | **408,618** | **422,920** | **437,722** | **453,043** | **468,899** | **485,311** | **502,296** | **519,877** | **538,072** | **556,905** | **576,397** | **596,571** | **617,451** | **639,061** | **661,428** | **684,578** | **708,539** | **733,338** | **759,004** | **785,570** | **813,064** | **841,522** | **14,546,699** |
| ***PERSONAL PROPERTY*** | *Taxable Value* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | GROSS |
| City of Midland - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Midland County - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Midland Hospital - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Midland College - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Midland ISD - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *Total* - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ***SALES TAX*** | *Taxable Value* | - | - | - | - | - | - | 1,536,569 | 1,590,349 | 3,292,023 | 3,407,243 | 3,526,497 | 3,649,924 | 3,777,672 | 3,909,890 | 4,046,736 | 4,188,372 | 4,334,965 | 4,486,689 | 4,643,723 | 4,806,253 | 4,974,472 | 5,148,579 | 5,328,779 | 5,515,286 | 5,708,321 | 5,908,112 | 6,114,896 | 6,328,918 | 6,550,430 | 6,779,695 | 7,016,984 | |
| City of Midland - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | - |
| Midland County - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Total* - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ***SUMMARY*** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | GROSS |
| City of Midland **5,106,573** | - | - | - | 31,103 | 86,514 | 217,609 | 230,613 | 375,873 | 394,800 | 408,618 | 422,920 | 437,722 | 453,043 | 468,899 | 485,311 | 502,296 | 519,877 | 538,072 | 556,905 | 576,397 | 596,571 | 617,451 | 639,061 | 661,428 | 684,578 | 708,539 | 733,338 | 759,004 | 785,570 | 813,064 | 841,522 | **14,546,699** |
| Midland County - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Midland Hospital - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Midland College - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Midland ISD - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *Total* **5,106,573** | - | - | - | **31,103** | **86,514** | **217,609** | **230,613** | **375,873** | **394,800** | **408,618** | **422,920** | **437,722** | **453,043** | **468,899** | **485,311** | **502,296** | **519,877** | **538,072** | **556,905** | **576,397** | **596,571** | **617,451** | **639,061** | **661,428** | **684,578** | **708,539** | **733,338** | **759,004** | **785,570** | **813,064** | **841,522** | **14,546,699** |

## TOTAL TAX REVENUE - PARTICIPATION = NET BENEFIT

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***SUMMARY*** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | GROSS |
| City of Midland **489,208** | - | - | - | - | - | - | 19,207 | 19,879 | 41,150 | 42,591 | 44,081 | 45,624 | 47,221 | 48,874 | 50,584 | 52,355 | 54,187 | 56,084 | 58,047 | 60,078 | 62,181 | 64,357 | 66,610 | 68,941 | 71,354 | 73,851 | 76,436 | 79,111 | 81,880 | 84,746 | 87,712 | **1,457,142** |
| Midland County **1,949,028** | - | - | - | 10,679 | 29,705 | 74,716 | 86,864 | 137,008 | 152,015 | 157,336 | 162,842 | 168,542 | 174,441 | 180,546 | 186,865 | 193,406 | 200,175 | 207,181 | 214,432 | 221,937 | 229,705 | 237,745 | 246,066 | 254,678 | 263,592 | 272,818 | 282,366 | 292,249 | 302,478 | 313,065 | 324,022 | **5,577,474** |
| Midland Hospital **1,064,822** | - | - | - | 6,486 | 18,040 | 45,376 | 48,087 | 78,377 | 82,324 | 85,205 | 88,187 | 91,274 | 94,468 | 97,775 | 101,197 | 104,739 | 108,405 | 112,199 | 116,126 | 120,190 | 124,397 | 128,751 | 133,257 | 137,921 | 142,748 | 147,744 | 152,915 | 158,267 | 163,807 | 169,540 | 175,474 | **3,033,276** |
| Midland College **1,127,296** | - | - | - | 6,866 | 19,098 | 48,038 | 50,909 | 82,975 | 87,154 | 90,204 | 93,361 | 96,629 | 100,011 | 103,511 | 107,134 | 110,884 | 114,765 | 118,782 | 122,939 | 127,242 | 131,695 | 136,305 | 141,075 | 146,013 | 151,123 | 156,413 | 161,887 | 167,553 | 173,418 | 179,487 | 185,769 | **3,211,240** |
| Midland ISD **12,807,864** | - | - | - | 78,009 | 216,988 | 545,788 | 578,405 | 942,732 | 990,204 | 1,024,861 | 1,060,731 | 1,097,857 | 1,136,282 | 1,176,052 | 1,217,214 | 1,259,816 | 1,303,910 | 1,349,547 | 1,396,781 | 1,445,668 | 1,496,267 | 1,548,636 | 1,602,838 | 1,658,937 | 1,717,000 | 1,777,095 | 1,839,294 | 1,903,669 | 1,970,297 | 2,039,258 | 2,110,632 | **36,484,768** |
| *Total* **17,448,218** | - | - | - | **102,040** | **283,831** | **713,918** | **783,472** | **1,260,972** | **1,352,847** | **1,400,197** | **1,449,204** | **1,499,926** | **1,552,423** | **1,606,758** | **1,662,994** | **1,721,199** | **1,781,441** | **1,843,792** | **1,908,324** | **1,975,116** | **2,044,245** | **2,115,793** | **2,189,846** | **2,266,491** | **2,345,818** | **2,427,921** | **2,512,899** | **2,600,850** | **2,691,880** | **2,786,096** | **2,883,609** | **49,743,900** |



DAVID PETTIT Economic Development

## HOT Generated

| Revenue Year | | 0<br>2023 | 1<br>2024 | 2<br>2025 | 3<br>2026 | 4<br>2027 | 5<br>2028 | 6<br>2029 | 7<br>2030 | 8<br>2031 | 9<br>2032 | 10<br>2033 | 11<br>2034 | 12<br>2035 | 13<br>2036 | 14<br>2037 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Hotel Rooms** | | 0 | 0 | 0 | 80 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 |
| Occupancy | | 0% | 0% | 0% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% |
| **Hotel Occupancy Tax** | | | | | | | | | | | | | | | | |
| # of Available Rooms | | - | - | - | 29,200 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 |
| # of Occupied Rooms | | - | - | - | 20,440 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 |
| Average Daily Rate | | $ - | $ - | $ - | $ 175.00 | $ 181.13 | $ 187.46 | $ 194.03 | $ 200.82 | $ 207.85 | $ 215.12 | $ 222.65 | $ 230.44 | $ 238.51 | $ 246.85 | $ 255.49 |
| Annual Taxable Revenue | | $ - | $ - | $ - | $ 3,577,000 | $ 9,949,649 | $ 10,297,887 | $ 10,658,313 | $ 11,031,354 | $ 11,417,451 | $ 11,817,062 | $ 12,230,659 | $ 12,658,732 | $ 13,101,788 | $ 13,560,350 | $ 14,034,963 |
| City Tax Rate | 7% | $ - | $ - | $ - | $ 250,390 | $ 696,475 | $ 720,852 | $ 746,082 | $ 772,195 | $ 799,222 | $ 827,194 | $ 856,146 | $ 886,111 | $ 917,125 | $ 949,225 | $ 982,447 |
| State Tax Rate | 6% | $ - | $ - | $ - | $ 214,620 | $ 596,979 | $ 617,873 | $ 639,499 | $ 661,881 | $ 685,047 | $ 709,024 | $ 733,840 | $ 759,524 | $ 786,107 | $ 813,621 | $ 842,098 |
| | | $ - | $ - | $ - | $ 465,010 | $ 1,293,454 | $ 1,338,725 | $ 1,385,581 | $ 1,434,076 | $ 1,484,269 | $ 1,536,218 | $ 1,589,986 | $ 1,645,635 | $ 1,703,232 | $ 1,762,846 | $ 1,824,545 |

| | 15<br>2038 | 16<br>2039 | 17<br>2040 | 18<br>2041 | 19<br>2042 | 20<br>2043 | 21<br>2044 | 22<br>2045 | 23<br>2046 | 24<br>2047 | 25<br>2048 | 26<br>2049 | 27<br>2050 | 28<br>2051 | 29<br>2052 | 30<br>2053 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | |
| | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | |
| | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | 78,475 | |
| | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | 54,933 | |
| | $ 264.44 | $ 273.69 | $ 283.27 | $ 293.19 | $ 303.45 | $ 314.07 | $ 325.06 | $ 336.44 | $ 348.21 | $ 360.40 | $ 373.01 | $ 386.07 | $ 399.58 | $ 413.57 | $ 428.04 | $ 443.02 | |
| | $ 14,526,186 | $ 15,034,603 | $ 15,560,814 | $ 16,105,442 | $ 16,669,133 | $ 17,252,553 | $ 17,856,392 | $ 18,481,366 | $ 19,128,213 | $ 19,797,701 | $ 20,490,620 | $ 21,207,792 | $ 21,950,065 | $ 22,718,317 | $ 23,513,458 | $ 24,336,429 | |
| | $ 1,016,833 | $ 1,052,422 | $ 1,089,257 | $ 1,127,381 | $ 1,166,839 | $ 1,207,679 | $ 1,249,947 | $ 1,293,696 | $ 1,338,975 | $ 1,385,839 | $ 1,434,343 | $ 1,484,545 | $ 1,536,505 | $ 1,590,282 | $ 1,645,942 | $ 1,703,550 | **$30,727,500** |
| | $ 871,571 | $ 902,076 | $ 933,649 | $ 966,327 | $ 1,000,148 | $ 1,035,153 | $ 1,071,384 | $ 1,108,882 | $ 1,147,693 | $ 1,187,862 | $ 1,229,437 | $ 1,272,468 | $ 1,317,004 | $ 1,363,099 | $ 1,410,807 | $ 1,460,186 | **$26,337,858** |
| | $ 1,888,404 | $ 1,954,498 | $ 2,022,906 | $ 2,093,708 | $ 2,166,987 | $ 2,242,832 | $ 2,321,331 | $ 2,402,578 | $ 2,486,668 | $ 2,573,701 | $ 2,663,781 | $ 2,757,013 | $ 2,853,508 | $ 2,953,381 | $ 3,056,750 | $ 3,163,736 | $57,065,358 |

## ESTIMATE OF GENERAL IMPACT OF PROPOSED PROPERTY VALUES AND TAX REVENUES, INCENTIVE BASED ON PROPOSED PARTICIPATION

**TAXABLE BASE YEAR GROWTH** 3.50%
**DISCOUNT RATE** 6.00%

**REAL PROPERTY TAX**

| | | | |
|---|---|---|---|
| City of Midland | 0.3506620 | 100% | 0.3506620 |
| Midland County | 0.1204000 | 0% | 0.0000000 |
| Midland Hospital | 0.0731200 | 0% | 0.0000000 |
| Midland College | 0.0774100 | 0% | 0.0000000 |
| Midland ISD | 0.2200000 | 0% | 0.0000000 |
| | *0.8415920* | | *0.3506620* |

*T&S Only*

**BUSINESS PERSONAL PROPERTY TAX**

| | | | |
|---|---|---|---|
| City of Midland | 0.3506620 | 0% | 0.0000000 |
| Midland County | 0.1204000 | 0% | 0.0000000 |
| Midland Hospital | 0.0731200 | 0% | 0.0000000 |
| Midland College | 0.0774100 | 0% | 0.0000000 |
| Midland ISD | 0.8795000 | 0% | 0.0000000 |
| | *1.5010920* | | *0.0000000* |

**SALES TAX**

| | | | |
|---|---|---|---|
| City of Midland | 0.0125000 | 0% | 0.0000000 |
| Midland County | 0.0050000 | 0% | 0.0000000 |
| | *456.7675000* | | *0.0175000* |

| REVENUE YEAR | TAX BASE YEAR 2023 | 1 2024 | 2 2025 | 3 2026 | 4 2027 | 5 2028 | 6 2029 | 7 2030 | 8 2031 | 9 2032 | 10 2033 | 11 2034 | 12 2035 | 13 2036 | 14 2037 | 15 2038 | 16 2039 | 17 2040 | 18 2041 | 19 2042 | 20 2043 | 21 2044 | 22 2045 | 23 2046 | 24 2047 | 25 2048 | 26 2049 | 27 2050 | 28 2051 | 29 2052 | 30 2053 | TOTALS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BASE YEAR** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City of Midland | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | | |
| Midland County | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | | |
| Midland Hospital | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | | |
| Midland College | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | | |
| Midland ISD | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | | |
| **TAXABLE VALUE** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City of Midland | | 707,726,844 | 732,497,283 | 758,134,688 | 784,669,402 | 812,132,831 | 840,557,481 | 869,976,992 | 900,426,187 | 931,941,104 | 964,559,042 | 998,318,609 | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | | |
| Midland County | | 707,726,844 | 732,497,283 | 758,134,688 | 784,669,402 | 812,132,831 | 840,557,481 | 869,976,992 | 900,426,187 | 931,941,104 | 964,559,042 | 998,318,609 | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | | |
| Midland Hospital | | 707,726,844 | 732,497,283 | 758,134,688 | 784,669,402 | 812,132,831 | 840,557,481 | 869,976,992 | 900,426,187 | 931,941,104 | 964,559,042 | 998,318,609 | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | | |
| Midland College | | 707,726,844 | 732,497,283 | 758,134,688 | 784,669,402 | 812,132,831 | 840,557,481 | 869,976,992 | 900,426,187 | 931,941,104 | 964,559,042 | 998,318,609 | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | | |
| Midland ISD | | 707,726,844 | 732,497,283 | 758,134,688 | 784,669,402 | 812,132,831 | 840,557,481 | 869,976,992 | 900,426,187 | 931,941,104 | 964,559,042 | 998,318,609 | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | | |
| **TAXABLE VALUE INCREMENT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City of Midland | | 23,932,792 | 48,703,231 | 74,340,636 | 100,875,350 | 128,338,779 | 156,763,429 | 186,182,940 | 216,632,135 | 248,147,052 | 280,764,990 | 314,524,557 | 349,465,708 | 385,629,800 | 423,059,634 | 461,799,513 | 501,895,288 | 543,394,415 | 586,346,012 | 630,800,914 | 676,811,738 | 724,432,940 | 773,720,885 | 824,733,908 | 877,532,386 | 932,178,812 | 988,737,862 | ########## | ########## | ########## | ########## | ########## | | |
| Midland County | | 23,932,792 | 48,703,231 | 74,340,636 | 100,875,350 | 128,338,779 | 156,763,429 | 186,182,940 | 216,632,135 | 248,147,052 | 280,764,990 | 314,524,557 | 349,465,708 | 385,629,800 | 423,059,634 | 461,799,513 | 501,895,288 | 543,394,415 | 586,346,012 | 630,800,914 | 676,811,738 | 724,432,940 | 773,720,885 | 824,733,908 | 877,532,386 | 932,178,812 | 988,737,862 | ########## | ########## | ########## | ########## | ########## | | |
| Midland Hospital | | 23,932,792 | 48,703,231 | 74,340,636 | 100,875,350 | 128,338,779 | 156,763,429 | 186,182,940 | 216,632,135 | 248,147,052 | 280,764,990 | 314,524,557 | 349,465,708 | 385,629,800 | 423,059,634 | 461,799,513 | 501,895,288 | 543,394,415 | 586,346,012 | 630,800,914 | 676,811,738 | 724,432,940 | 773,720,885 | 824,733,908 | 877,532,386 | 932,178,812 | 988,737,862 | ########## | ########## | ########## | ########## | ########## | | |
| Midland College | | 23,932,792 | 48,703,231 | 74,340,636 | 100,875,350 | 128,338,779 | 156,763,429 | 186,182,940 | 216,632,135 | 248,147,052 | 280,764,990 | 314,524,557 | 349,465,708 | 385,629,800 | 423,059,634 | 461,799,513 | 501,895,288 | 543,394,415 | 586,346,012 | 630,800,914 | 676,811,738 | 724,432,940 | 773,720,885 | 824,733,908 | 877,532,386 | 932,178,812 | 988,737,862 | ########## | ########## | ########## | ########## | ########## | | |
| Midland ISD | | 23,932,792 | 48,703,231 | 74,340,636 | 100,875,350 | 128,338,779 | 156,763,429 | 186,182,940 | 216,632,135 | 248,147,052 | 280,764,990 | 314,524,557 | 349,465,708 | 385,629,800 | 423,059,634 | 461,799,513 | 501,895,288 | 543,394,415 | 586,346,012 | 630,800,914 | 676,811,738 | 724,432,940 | 773,720,885 | 824,733,908 | 877,532,386 | 932,178,812 | 988,737,862 | ########## | ########## | ########## | ########## | ########## | | |
| **REVENUE A** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TAXABLE VALUE GROWTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City of Midland | | 83,923 | 170,784 | 260,684 | 353,732 | 450,035 | 549,710 | 652,873 | 759,647 | 870,157 | 984,536 | 1,102,918 | 1,225,443 | 1,352,257 | 1,483,509 | 1,619,355 | 1,759,956 | 1,905,478 | 2,056,093 | 2,211,979 | 2,373,322 | 2,540,311 | 2,713,145 | 2,892,028 | 3,077,173 | 3,268,797 | 3,467,128 | 3,672,401 | 3,884,858 | 4,104,751 | 4,332,341 | 56,179,324 | City of Midland |
| Midland County | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Midland County |
| Midland Hospital | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Midland Hospital |
| Midland College | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Midland College |
| Midland ISD | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Midland ISD |
| | | **83,923** | **170,784** | **260,684** | **353,732** | **450,035** | **549,710** | **652,873** | **759,647** | **870,157** | **984,536** | **1,102,918** | **1,225,443** | **1,352,257** | **1,483,509** | **1,619,355** | **1,759,956** | **1,905,478** | **2,056,093** | **2,211,979** | **2,373,322** | **2,540,311** | **2,713,145** | **2,892,028** | **3,077,173** | **3,268,797** | **3,467,128** | **3,672,401** | **3,884,858** | **4,104,751** | **4,332,341** | **56,179,324** | |
| **REVENUE 1 - DOWNTOWN** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **REAL PROPERTY TAX** | | 0 | 0 | 8,869,743 | 24,671,745 | 62,056,609 | 65,765,160 | 107,189,528 | 112,587,173 | 116,527,724 | 120,606,194 | 124,827,411 | 129,196,370 | 133,718,243 | 138,398,382 | 143,242,325 | 148,255,806 | 153,444,760 | 158,815,326 | 164,373,863 | 170,126,948 | 176,081,391 | 182,244,240 | 188,622,788 | 195,224,586 | 202,057,446 | 209,129,457 | 216,448,988 | 224,024,702 | 231,865,567 | 239,980,862 | | |
| **BUSINESS PERSONAL PROPERTY** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| City of Midland | | 0 | 0 | 31,103 | 86,514 | 217,609 | 230,613 | 375,873 | 394,800 | 408,618 | 422,920 | 437,722 | 453,043 | 468,899 | 485,311 | 502,296 | 519,877 | 538,072 | 556,905 | 576,397 | 596,571 | 617,451 | 639,061 | 661,428 | 684,578 | 708,539 | 733,338 | 759,004 | 785,570 | 813,064 | 841,522 | 14,546,699 | City of Midland |
| Midland County | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Midland County |
| Midland Hospital | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Midland Hospital |
| Midland College | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Midland College |
| Midland ISD | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Midland ISD |
| | | **0** | **0** | **31,103** | **86,514** | **217,609** | **230,613** | **375,873** | **394,800** | **408,618** | **422,920** | **437,722** | **453,043** | **468,899** | **485,311** | **502,296** | **519,877** | **538,072** | **556,905** | **576,397** | **596,571** | **617,451** | **639,061** | **661,428** | **684,578** | **708,539** | **733,338** | **759,004** | **785,570** | **813,064** | **841,522** | **14,546,699** | |
| **REVENUE 2 - DOWNTOWN SALES** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SALES | | 0 | 0 | 0 | 0 | 0 | 1,536,569 | 1,590,349 | 3,292,023 | 3,407,243 | 3,526,497 | 3,649,924 | 3,777,672 | 3,909,890 | 4,046,736 | 4,188,372 | 4,334,965 | 4,486,689 | 4,643,723 | 4,806,253 | 4,974,472 | 5,148,579 | 5,328,779 | 5,515,286 | 5,708,321 | 5,908,112 | 6,114,896 | 6,328,918 | 6,550,430 | 6,779,695 | 7,016,984 | | |
| City of Midland | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | City of Midland |
| Midland County | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Midland County |
| | | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **REVENUE 3 - HOTEL OCCUPANCY TAX** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 0 | 0 | 3,577,000 | 9,949,649 | 10,297,887 | 10,658,313 | 11,031,354 | 11,417,451 | 11,817,062 | 12,230,659 | 12,658,732 | 13,101,788 | 13,560,350 | 14,034,963 | 14,526,186 | 15,034,603 | 15,560,814 | 16,105,442 | 16,669,133 | 17,252,553 | 17,856,392 | 18,481,366 | 19,128,213 | 19,797,701 | 20,490,620 | 21,207,792 | 21,950,065 | 22,718,317 | 23,513,458 | 24,336,429 | | |
| City of Midland | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | City of Midland |
| | | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **REVENUE A, 1, 2, 3** | | **83,923** | **170,784** | **291,787** | **440,246** | **667,644** | **780,323** | **1,028,746** | **1,154,447** | **1,278,776** | **1,407,456** | **1,540,640** | **1,678,486** | **1,821,156** | **1,968,820** | **2,121,652** | **2,279,833** | **2,443,550** | **2,612,998** | **2,788,376** | **2,969,892** | **3,157,762** | **3,352,206** | **3,553,457** | **3,761,751** | **3,977,336** | **4,200,465** | **4,431,405** | **4,670,427** | **4,917,816** | **5,173,862** | **70,726,022** | |
| **Running Total** | | **83.923** | **254.707** | **546.494** | **986.740** | **1,654.384** | **2,434.708** | **3,463.453** | **4,617.900** | **5,896.676** | **7,304.132** | **8,844.773** | **10,523.259** | **12,344.415** | **14,313.235** | **16,434.887** | **18,714.720** | **21,158.270** | **23,771.267** | **26,559.643** | **29,529.535** | **32,687.297** | **36,039.503** | **39,592.960** | **43,354.711** | **47,332.047** | **51,532.512** | **55,963.917** | **60,634.345** | **65,552.160** | **70,726.022** | | |

**GROSS** 70,726,022

| | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| City of Midland | $ 83,923 | $ 170,784 | $ 291,787 | $ 440,246 | $ 667,644 | $ 780,323 | $ 1,028,746 | $ 1,154,447 | $ 1,278,776 | $ 1,407,456 | $ 1,540,640 | $ 1,678,486 | $ 1,821,156 | $ 1,968,820 | $ 2,121,652 | $ 2,279,833 | $ 2,443,550 | $ 2,612,998 | $ 2,788,376 | $ 2,969,892 | $ 3,157,762 | $ 3,352,206 | $ 3,553,457 | $ 3,761,751 | $ 3,977,336 | $ 4,200,465 | $ 4,431,405 | $ 4,670,427 | $ 4,917,816 | $ 5,173,862 | 70,726,022 | City of Midland |
| Midland County | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | 0 | Midland County |
| Midland Hospital | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | 0 | Midland Hospital |
| Midland College | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | 0 | Midland College |
| Midland ISD | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | 0 | Midland ISD |
| | **83,923** | **170,784** | **291,787** | **440,246** | **667,644** | **780,323** | **1,028,746** | **1,154,447** | **1,278,776** | **1,407,456** | **1,540,640** | **1,678,486** | **1,821,156** | **1,968,820** | **2,121,652** | **2,279,833** | **2,443,550** | **2,612,998** | **2,788,376** | **2,969,892** | **3,157,762** | **3,352,206** | **3,553,457** | **3,761,751** | **3,977,336** | **4,200,465** | **4,431,405** | **4,670,427** | **4,917,816** | **5,173,862** | **70,726,022** | TOTAL |



DAVID PETTIT Economic Development

## ESTIMATE OF GENERAL IMPACT OF PROPOSED PROPERTY VALUES AND TAX REVENUES, INCENTIVE BASED ON PROPOSED PARTICIPATION

TAXABLE BASE YEAR GROWTH 3.50%
DISCOUNT RATE 6.00%

| REAL PROPERTY TAX | | | BUSINESS PERSONAL PROPERTY TAX | | | SALES TAX | | |
|---|---|---|---|---|---|---|---|---|
| City of Midland | 0.3506620 | 100% | 0.3506620 | 0.3506620 | 100% | 0.3506620 | 0.0125000 | 100% | 0.0125000 |
| Midland County | 0.1204000 | 100% | 0.1204000 | 0.1204000 | 100% | 0.1204000 | 0.0050000 | 100% | 0.0050000 |
| Midland Hospital | 0.0731200 | 100% | 0.0731200 | 0.0731200 | 100% | 0.0731200 | *456.7675000* | | *456.7675000* |
| Midland College | 0.0774100 | 100% | 0.0774100 | 0.0774100 | 100% | 0.0774100 | | | |
| Midland ISD | 0.8795000 | 100% | 0.8795000 | 0.8795000 | 100% | 0.8795000 | | | |
| | *1.5010920* | | *1.5010920* | *1.5010920* | | *1.5010920* | | | |

| REVENUE YEAR | TAX BASE YEAR 2023 | 1 2024 | 2 2025 | 3 2026 | 4 2027 | 5 2028 | 6 2029 | 7 2030 | 8 2031 | 9 2032 | 10 2033 | 11 2034 | 12 2035 | 13 2036 | 14 2037 | 15 2038 | 16 2039 | 17 2040 | 18 2041 | 19 2042 | 20 2043 | 21 2044 | 22 2045 | 23 2046 | 24 2047 | 25 2048 | 26 2049 | 27 2050 | 28 2051 | 29 2052 | 30 2053 | TOTALS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BASE YEAR** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City of Midland | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | | |
| Midland County | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | | |
| Midland Hospital | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | | |
| Midland College | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | | |
| Midland ISD | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | 683,794,052 | | |
| **TAXABLE VALUE** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City of Midland | | 707,726,844 | 732,497,283 | 758,134,688 | 784,669,402 | 812,132,831 | 840,557,481 | 869,976,992 | 900,426,187 | 931,941,104 | 964,559,042 | 998,318,609 | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | | |
| Midland County | | 707,726,844 | 732,497,283 | 758,134,688 | 784,669,402 | 812,132,831 | 840,557,481 | 869,976,992 | 900,426,187 | 931,941,104 | 964,559,042 | 998,318,609 | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | | |
| Midland Hospital | | 707,726,844 | 732,497,283 | 758,134,688 | 784,669,402 | 812,132,831 | 840,557,481 | 869,976,992 | 900,426,187 | 931,941,104 | 964,559,042 | 998,318,609 | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | | |
| Midland College | | 707,726,844 | 732,497,283 | 758,134,688 | 784,669,402 | 812,132,831 | 840,557,481 | 869,976,992 | 900,426,187 | 931,941,104 | 964,559,042 | 998,318,609 | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | | |
| Midland ISD | | 707,726,844 | 732,497,283 | 758,134,688 | 784,669,402 | 812,132,831 | 840,557,481 | 869,976,992 | 900,426,187 | 931,941,104 | 964,559,042 | 998,318,609 | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | ########## | | |
| **TAXABLE VALUE INCREMENT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City of Midland | | 23,932,792 | 48,703,231 | 74,340,636 | 100,875,350 | 128,338,779 | 156,763,429 | 186,182,940 | 216,632,135 | 248,147,052 | 280,764,990 | 314,524,557 | 349,465,708 | 385,629,800 | 423,059,634 | 461,799,513 | 501,895,288 | 543,394,415 | 586,346,012 | 630,800,914 | 676,811,738 | 724,432,940 | 773,720,885 | 824,733,908 | 877,532,386 | 932,178,812 | 988,737,862 | ########## | ########## | ########## | ########## | ########## | | |
| Midland County | | 23,932,792 | 48,703,231 | 74,340,636 | 100,875,350 | 128,338,779 | 156,763,429 | 186,182,940 | 216,632,135 | 248,147,052 | 280,764,990 | 314,524,557 | 349,465,708 | 385,629,800 | 423,059,634 | 461,799,513 | 501,895,288 | 543,394,415 | 586,346,012 | 630,800,914 | 676,811,738 | 724,432,940 | 773,720,885 | 824,733,908 | 877,532,386 | 932,178,812 | 988,737,862 | ########## | ########## | ########## | ########## | ########## | | |
| Midland Hospital | | 23,932,792 | 48,703,231 | 74,340,636 | 100,875,350 | 128,338,779 | 156,763,429 | 186,182,940 | 216,632,135 | 248,147,052 | 280,764,990 | 314,524,557 | 349,465,708 | 385,629,800 | 423,059,634 | 461,799,513 | 501,895,288 | 543,394,415 | 586,346,012 | 630,800,914 | 676,811,738 | 724,432,940 | 773,720,885 | 824,733,908 | 877,532,386 | 932,178,812 | 988,737,862 | ########## | ########## | ########## | ########## | ########## | | |
| Midland College | | 23,932,792 | 48,703,231 | 74,340,636 | 100,875,350 | 128,338,779 | 156,763,429 | 186,182,940 | 216,632,135 | 248,147,052 | 280,764,990 | 314,524,557 | 349,465,708 | 385,629,800 | 423,059,634 | 461,799,513 | 501,895,288 | 543,394,415 | 586,346,012 | 630,800,914 | 676,811,738 | 724,432,940 | 773,720,885 | 824,733,908 | 877,532,386 | 932,178,812 | 988,737,862 | ########## | ########## | ########## | ########## | ########## | | |
| Midland ISD | | 23,932,792 | 48,703,231 | 74,340,636 | 100,875,350 | 128,338,779 | 156,763,429 | 186,182,940 | 216,632,135 | 248,147,052 | 280,764,990 | 314,524,557 | 349,465,708 | 385,629,800 | 423,059,634 | 461,799,513 | 501,895,288 | 543,394,415 | 586,346,012 | 630,800,914 | 676,811,738 | 724,432,940 | 773,720,885 | 824,733,908 | 877,532,386 | 932,178,812 | 988,737,862 | ########## | ########## | ########## | ########## | ########## | | |
| **REVENUE A** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TAXABLE VALUE GROWTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City of Midland | | 83,923 | 170,784 | 260,684 | 353,732 | 450,035 | 549,710 | 652,873 | 759,647 | 870,157 | 984,536 | 1,102,918 | 1,225,443 | 1,352,257 | 1,483,509 | 1,619,355 | 1,759,956 | 1,905,478 | 2,056,093 | 2,211,979 | 2,373,322 | 2,540,311 | 2,713,145 | 2,892,028 | 3,077,173 | 3,268,797 | 3,467,128 | 3,672,401 | 3,884,858 | 4,104,751 | 4,332,341 | 56,179,324 | City of Midland |
| Midland County | | 28,815 | 58,639 | 89,506 | 121,454 | 154,520 | 188,743 | 224,164 | 260,825 | 298,769 | 338,041 | 378,688 | 420,757 | 464,298 | 509,364 | 556,007 | 604,282 | 654,247 | 705,961 | 759,484 | 814,881 | 872,217 | 931,560 | 992,980 | 1,056,549 | 1,122,343 | 1,190,440 | 1,260,921 | 1,333,868 | 1,409,369 | 1,487,512 | 19,289,203 | Midland County |
| Midland Hospital | | 17,500 | 35,612 | 54,358 | 73,760 | 93,841 | 114,625 | 136,137 | 158,401 | 181,445 | 205,295 | 229,980 | 255,529 | 281,973 | 309,341 | 337,668 | 366,986 | 397,330 | 428,736 | 461,242 | 494,885 | 529,705 | 565,745 | 603,045 | 641,652 | 681,609 | 722,965 | 765,769 | 810,070 | 855,922 | 903,379 | 11,714,506 | Midland Hospital |
| Midland College | | 18,526 | 37,701 | 57,547 | 78,088 | 99,347 | 121,351 | 144,124 | 167,695 | 192,091 | 217,340 | 243,473 | 270,521 | 298,516 | 327,490 | 357,479 | 388,517 | 420,642 | 453,890 | 488,303 | 523,920 | 560,784 | 598,937 | 638,427 | 679,298 | 721,600 | 765,382 | 810,697 | 857,597 | 906,140 | 956,381 | 12,401,804 | Midland College |
| Midland ISD | | 210,489 | 428,345 | 653,826 | 887,199 | 1,128,740 | 1,378,734 | 1,637,479 | 1,905,280 | 2,182,453 | 2,469,328 | 2,766,243 | 3,073,551 | 3,391,614 | 3,720,809 | 4,061,527 | 4,414,169 | 4,779,154 | 5,156,913 | 5,547,894 | 5,952,559 | 6,371,388 | 6,804,875 | 7,253,535 | 7,717,897 | 8,198,513 | 8,695,949 | 9,210,797 | 9,743,663 | 10,295,181 | 10,866,001 | 140,904,105 | Midland ISD |
| | | **359,253** | **731,080** | **1,115,921** | **1,514,232** | **1,926,483** | **2,353,163** | **2,794,777** | **3,251,848** | **3,724,916** | **4,214,541** | **4,721,303** | **5,245,802** | **5,788,658** | **6,350,514** | **6,932,036** | **7,533,910** | **8,156,850** | **8,801,593** | **9,468,902** | **10,159,567** | **10,874,405** | **11,614,262** | **12,389,015** | **13,172,568** | **13,992,862** | **14,841,865** | **15,720,583** | **16,630,057** | **17,571,362** | **18,545,613** | **240,488,942** | |
| **REVENUE 1 - DOWNTOWN** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REAL PROPERTY TAX | | 0 | 0 | 8,869,743 | 24,671,745 | 62,056,609 | 65,765,160 | 107,189,528 | 112,587,173 | 116,527,724 | 120,606,194 | 124,827,411 | 129,196,370 | 133,718,243 | 138,398,382 | 143,242,325 | 148,255,806 | 153,444,760 | 158,815,326 | 164,373,863 | 170,126,948 | 176,081,391 | 182,244,240 | 188,622,788 | 195,224,586 | 202,057,446 | 209,129,457 | 216,448,988 | 224,024,702 | 231,865,567 | 239,980,862 | | |
| BUSINESS PERSONAL PROPERTY | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| City of Midland | | 0 | 0 | 31,103 | 86,514 | 217,609 | 230,613 | 375,873 | 394,800 | 408,618 | 422,920 | 437,722 | 453,043 | 468,899 | 485,311 | 502,296 | 519,877 | 538,072 | 556,905 | 576,397 | 596,571 | 617,451 | 639,061 | 661,428 | 684,578 | 708,539 | 733,338 | 759,004 | 785,570 | 813,064 | 841,522 | 14,546,699 | City of Midland |
| Midland County | | 0 | 0 | 10,679 | 29,705 | 74,716 | 79,181 | 129,056 | 135,555 | 140,299 | 145,210 | 150,292 | 155,552 | 160,997 | 166,632 | 172,464 | 178,500 | 184,747 | 191,214 | 197,906 | 204,833 | 212,002 | 219,422 | 227,102 | 235,050 | 243,277 | 251,792 | 260,605 | 269,726 | 279,166 | 288,937 | 4,994,617 | Midland County |
| Midland Hospital | | 0 | 0 | 6,486 | 18,040 | 45,376 | 48,087 | 78,377 | 82,324 | 85,205 | 88,187 | 91,274 | 94,468 | 97,775 | 101,197 | 104,739 | 108,405 | 112,199 | 116,126 | 120,190 | 124,397 | 128,751 | 133,257 | 137,921 | 142,748 | 147,744 | 152,915 | 158,267 | 163,807 | 169,540 | 175,474 | 3,033,276 | Midland Hospital |
| Midland College | | 0 | 0 | 6,866 | 19,098 | 48,038 | 50,909 | 82,975 | 87,154 | 90,204 | 93,361 | 96,629 | 100,011 | 103,511 | 107,134 | 110,884 | 114,765 | 118,782 | 122,939 | 127,242 | 131,695 | 136,305 | 141,075 | 146,013 | 151,123 | 156,413 | 161,887 | 167,553 | 173,418 | 179,487 | 185,769 | 3,211,240 | Midland College |
| Midland ISD | | 0 | 0 | 78,009 | 216,988 | 545,788 | 578,405 | 942,732 | 990,204 | 1,024,861 | 1,060,731 | 1,097,857 | 1,136,282 | 1,176,052 | 1,217,214 | 1,259,816 | 1,303,910 | 1,349,547 | 1,396,781 | 1,445,668 | 1,496,267 | 1,548,636 | 1,602,838 | 1,658,937 | 1,717,000 | 1,777,095 | 1,839,294 | 1,903,669 | 1,970,297 | 2,039,258 | 2,110,632 | 36,484,768 | Midland ISD |
| | | **0** | **0** | **133,143** | **370,346** | **931,527** | **987,196** | **1,609,013** | **1,690,037** | **1,749,188** | **1,810,410** | **1,873,774** | **1,939,356** | **2,007,234** | **2,077,487** | **2,150,199** | **2,225,456** | **2,303,347** | **2,383,964** | **2,467,403** | **2,553,762** | **2,643,144** | **2,735,654** | **2,831,402** | **2,930,501** | **3,033,068** | **3,139,226** | **3,249,098** | **3,362,817** | **3,480,515** | **3,602,334** | **62,270,600** | |
| **REVENUE 2 - DOWNTOWN SALES** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SALES | | 0 | 0 | 0 | 0 | 0 | 1,536,569 | 1,590,349 | 3,292,023 | 3,407,243 | 3,526,497 | 3,649,924 | 3,777,672 | 3,909,890 | 4,046,736 | 4,188,372 | 4,334,965 | 4,486,689 | 4,643,723 | 4,806,253 | 4,974,472 | 5,148,579 | 5,328,779 | 5,515,286 | 5,708,321 | 5,908,112 | 6,114,896 | 6,328,918 | 6,550,430 | 6,779,695 | 7,016,984 | | |
| City of Midland | | 0 | 0 | 0 | 0 | 0 | 19,207 | 19,879 | 41,150 | 42,591 | 44,081 | 45,624 | 47,221 | 48,874 | 50,584 | 52,355 | 54,187 | 56,084 | 58,047 | 60,078 | 62,181 | 64,357 | 66,610 | 68,941 | 71,354 | 73,851 | 76,436 | 79,111 | 81,880 | 84,746 | 87,712 | 1,457,142 | City of Midland |
| Midland County | | 0 | 0 | 0 | 0 | 0 | 7,683 | 7,952 | 16,460 | 17,036 | 17,632 | 18,250 | 18,888 | 19,549 | 20,234 | 20,942 | 21,675 | 22,433 | 23,219 | 24,031 | 24,872 | 25,743 | 26,644 | 27,576 | 28,542 | 29,541 | 30,574 | 31,645 | 32,752 | 33,898 | 35,085 | 582,857 | Midland County |
| | | **0** | **0** | **0** | **0** | **0** | **26,890** | **27,831** | **57,610** | **59,627** | **61,714** | **63,874** | **66,109** | **68,423** | **70,818** | **73,297** | **75,862** | **78,517** | **81,265** | **84,109** | **87,053** | **90,100** | **93,254** | **96,518** | **99,896** | **103,392** | **107,011** | **110,756** | **114,633** | **118,645** | **122,797** | **2,039,999** | |
| **REVENUE 3 - HOTEL OCCUPANCY TAX** | | 0 | 0 | 3,577,000 | 9,949,649 | 10,297,887 | 10,658,313 | 11,031,354 | 11,417,451 | 11,817,062 | 12,230,659 | 12,658,732 | 13,101,788 | 13,560,350 | 14,034,963 | 14,526,186 | 15,034,603 | 15,560,814 | 16,105,442 | 16,669,133 | 17,252,553 | 17,856,392 | 18,481,366 | 19,128,213 | 19,797,701 | 20,490,620 | 21,207,792 | 21,950,065 | 22,718,317 | 23,513,458 | 24,336,429 | | |
| City of Midland | | 0 | 0 | 250,390 | 696,475 | 720,852 | 746,082 | 772,195 | 799,222 | 827,194 | 856,146 | 886,111 | 917,125 | 949,225 | 982,447 | 1,016,833 | 1,052,422 | 1,089,257 | 1,127,381 | 1,166,839 | 1,207,679 | 1,249,947 | 1,293,696 | 1,338,975 | 1,385,839 | 1,434,343 | 1,484,545 | 1,536,505 | 1,590,282 | 1,645,942 | 1,703,550 | 30,727,500 | City of Midland |
| | | **0** | **0** | **250,390** | **696,475** | **720,852** | **746,082** | **772,195** | **799,222** | **827,194** | **856,146** | **886,111** | **917,125** | **949,225** | **982,447** | **1,016,833** | **1,052,422** | **1,089,257** | **1,127,381** | **1,166,839** | **1,207,679** | **1,249,947** | **1,293,696** | **1,338,975** | **1,385,839** | **1,434,343** | **1,484,545** | **1,536,505** | **1,590,282** | **1,645,942** | **1,703,550** | **30,727,500** | |
| **REVENUE A, 1, 2, 3** | | **359,253** | **731,080** | **1,499,454** | **2,581,053** | **3,578,862** | **4,113,331** | **5,203,817** | **5,798,717** | **6,360,925** | **6,942,811** | **7,545,062** | **8,168,393** | **8,813,540** | **9,481,267** | **10,172,364** | **10,887,650** | **11,627,971** | **12,394,203** | **13,187,254** | **14,008,061** | **14,857,596** | **15,736,865** | **16,646,909** | **17,588,804** | **18,563,665** | **19,572,647** | **20,616,942** | **21,697,789** | **22,816,465** | **23,974,294** | **335,527,042** | |
| **Running Total** | | **359,253** | **1,090,334** | **2,589,788** | **5,170,841** | **8,749,703** | **12,863,033** | **18,066,850** | **23,865,567** | **30,226,492** | **37,169,302** | **44,714,364** | **52,882,757** | **61,696,296** | **71,177,563** | **81,349,927** | **92,237,577** | **103,865,549** | **116,259,752** | **129,447,006** | **143,455,066** | **158,312,663** | **174,049,528** | **190,696,437** | **208,285,240** | **226,848,905** | **246,421,552** | **267,038,495** | **288,736,283** | **311,552,748** | **335,527,042** | | |

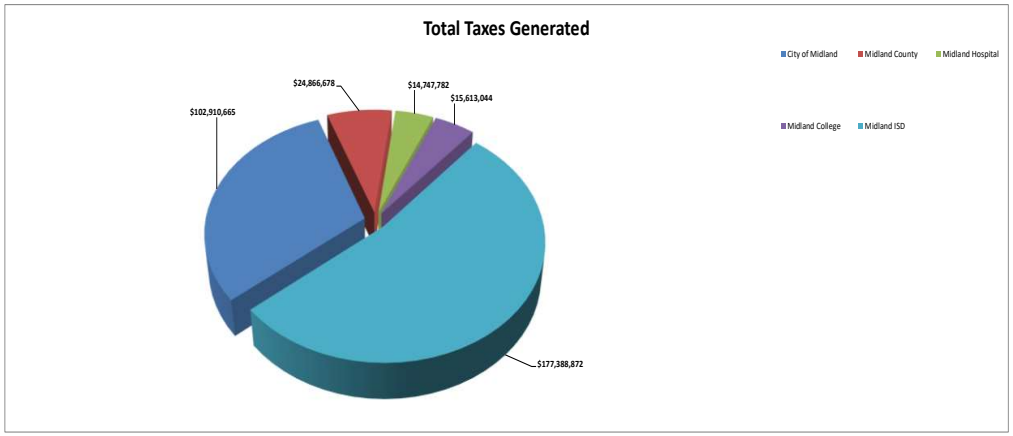
| GROSS | 335,527,042 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| City of Midland | | $ 83,923 | $ 170,784 | $ 542,177 | $ 1,136,721 | $ 1,388,496 | $ 1,545,612 | $ 1,820,820 | $ 1,994,819 | $ 2,148,561 | $ 2,307,684 | $ 2,472,376 | $ 2,642,832 | $ 2,819,254 | $ 3,001,851 | $ 3,190,840 | $ 3,386,442 | $ 3,588,891 | $ 3,798,425 | $ 4,015,293 | $ 4,239,752 | $ 4,472,066 | $ 4,712,512 | $ 4,961,373 | $ 5,218,944 | $ 5,485,530 | $ 5,761,447 | $ 6,047,021 | $ 6,342,590 | $ 6,648,504 | $ 6,965,125 | 102,910,665 | City of Midland |
| Midland County | | $ 28,815 | $ 58,639 | $ 100,185 | $ 151,159 | $ 229,236 | $ 275,607 | $ 361,172 | $ 412,840 | $ 456,105 | $ 500,883 | $ 547,229 | $ 595,198 | $ 644,844 | $ 696,229 | $ 749,412 | $ 804,457 | $ 861,428 | $ 920,393 | $ 981,422 | $ 1,044,587 | $ 1,109,962 | $ 1,177,626 | $ 1,247,658 | $ 1,320,141 | $ 1,395,161 | $ 1,472,807 | $ 1,553,170 | $ 1,636,346 | $ 1,722,433 | $ 1,811,534 | 24,866,678 | Midland County |
| Midland Hospital | | $ 17,500 | $ 35,612 | $ 60,843 | $ 91,800 | $ 139,217 | $ 162,713 | $ 214,514 | $ 240,725 | $ 266,650 | $ 293,483 | $ 321,254 | $ 349,998 | $ 379,747 | $ 410,538 | $ 442,407 | $ 475,390 | $ 509,529 | $ 544,862 | $ 581,432 | $ 619,282 | $ 658,456 | $ 699,002 | $ 740,966 | $ 784,400 | $ 829,354 | $ 875,881 | $ 924,036 | $ 973,877 | $ 1,025,462 | $ 1,078,853 | 14,747,782 | Midland Hospital |
| Midland College | | $ 18,526 | $ 37,701 | $ 64,413 | $ 97,186 | $ 147,385 | $ 172,259 | $ 227,100 | $ 254,849 | $ 282,295 | $ 310,701 | $ 340,102 | $ 370,532 | $ 402,027 | $ 434,625 | $ 468,363 | $ 503,282 | $ 539,423 | $ 576,829 | $ 615,545 | $ 655,615 | $ 697,088 | $ 740,013 | $ 784,439 | $ 830,421 | $ 878,012 | $ 927,269 | $ 978,250 | $ 1,031,015 | $ 1,085,627 | $ 1,142,150 | 15,613,044 | Midland College |
| Midland ISD | | $ 210,489 | $ 428,345 | $ 731,835 | $ 1,104,187 | $ 1,674,527 | $ 1,957,139 | $ 2,580,211 | $ 2,895,484 | $ 3,207,315 | $ 3,530,960 | $ 3,864,101 | $ 4,209,833 | $ 4,567,666 | $ 4,938,023 | $ 5,321,343 | $ 5,718,079 | $ 6,128,701 | $ 6,553,694 | $ 6,993,562 | $ 7,448,826 | $ 7,920,024 | $ 8,407,713 | $ 8,912,472 | $ 9,434,898 | $ 9,975,608 | $ 10,535,243 | $ 11,114,465 | $ 11,713,961 | $ 12,334,438 | $ 12,976,632 | 177,388,872 | Midland ISD |
| | | **359,253** | **731,080** | **1,499,454** | **2,581,053** | **3,578,862** | **4,113,331** | **5,203,817** | **5,798,717** | **6,360,925** | **6,942,811** | **7,545,062** | **8,168,393** | **8,813,540** | **9,481,267** | **10,172,364** | **10,887,650** | **11,627,971** | **12,394,203** | **13,187,254** | **14,008,061** | **14,857,596** | **15,736,865** | **16,646,909** | **17,588,804** | **18,563,665** | **19,572,647** | **20,616,942** | **21,697,789** | **22,816,465** | **23,974,294** | **335,527,042** | TOTAL |

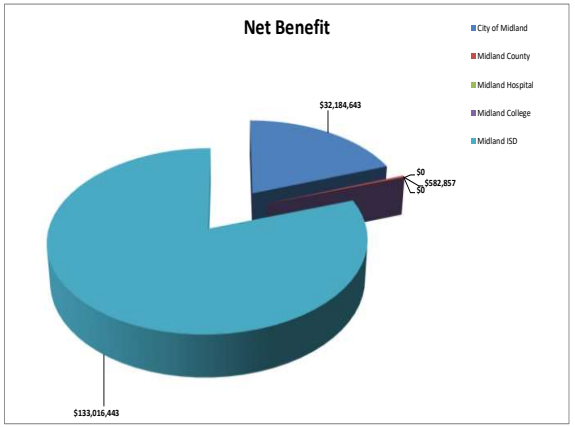
**Revenue Summary**

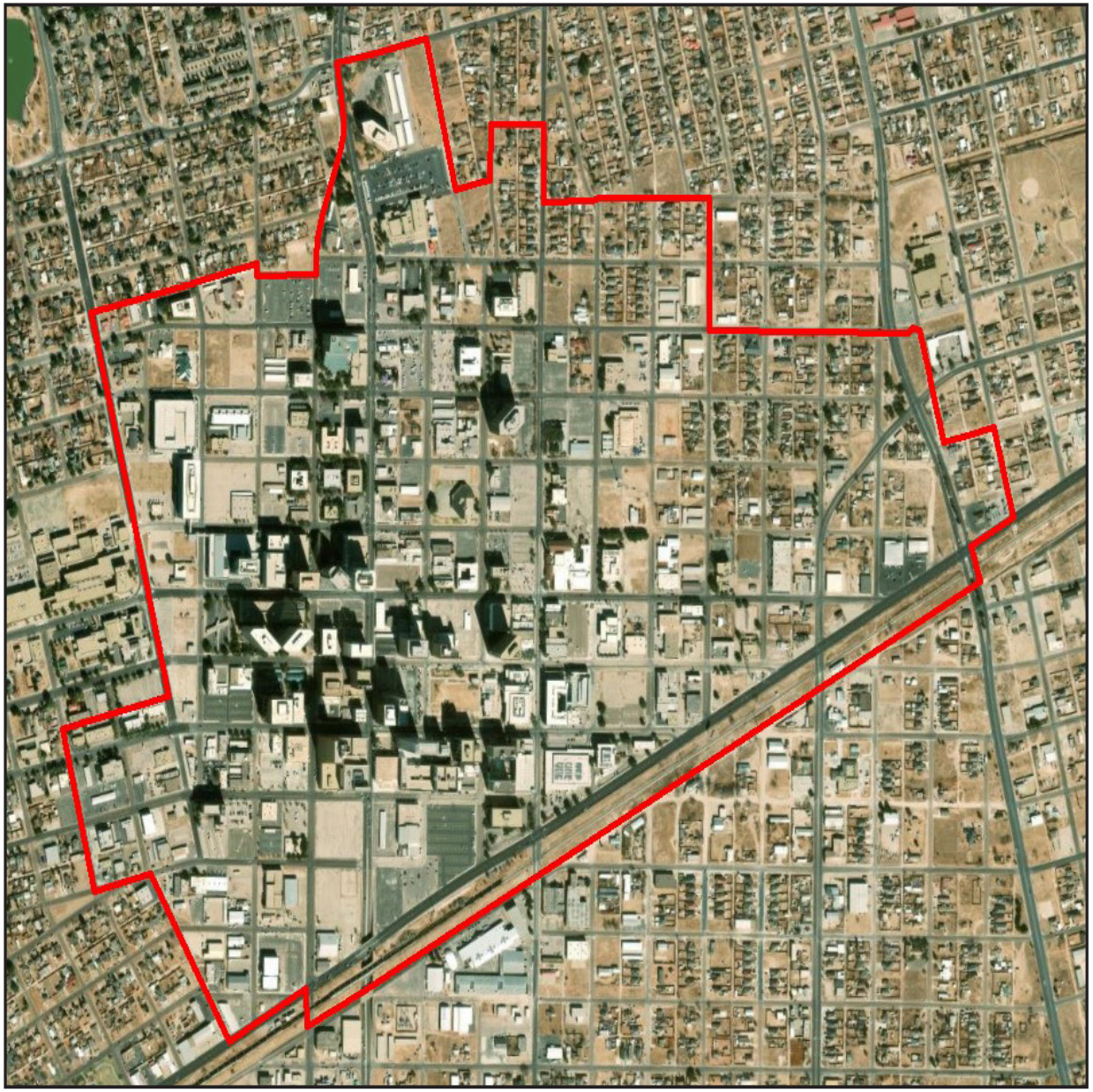
| Taxing Jurisdictions | Total Taxes Generated | City Participation (100%) | *Potential Additional Participation (100%) | Net Benefit |
|---|---|---|---|---|
| City of Midland | $102,910,665 | $70,726,022 | | $32,184,643 |
| Midland County | $24,866,678 | | $24,283,821 | $582,857 |
| Midland Hospital | $14,747,782 | | $14,747,782 | $0 |
| Midland College | $15,613,044 | | $15,613,044 | $0 |
| Midland ISD | $177,388,872 | | $44,372,430 | $133,016,443 |
| **Total** | **$335,527,042** | **$70,726,022** | **$99,017,077** | **$165,783,942** |

**Potential Additional Participation subject to separate yet to be negotiated interlocal agreements, Midland County, Midland Hospital, and Midland College may contribute up to 100% of the real property increment within the Zone. Subject to a separate yet to be negotiated interlocal agreement, Midland ISD may contribute up to 100% of the real property increment generated from the Interest and Sinking (I&S) portion of its tax rate within the Zone.*

| Taxing Jurisdictions | Total Taxes Generated | Participation | Net Benefit |
|---|---|---|---|
| City of Midland | $102,910,665 | $70,726,022 | $32,184,643 |
| *City of Midland - Real Property* | *$70,726,022* | *$70,726,022* | $0 |
| *City of Midland - Sales* | *$1,457,142* | *$0* | *$1,457,142* |
| *City of Midland -HOT* | *$30,727,500* | *$0* | $30,727,500 |





**Length of TIRZ #2 in Years:**

The TIRZ has a 30 year term and is scheduled to end on December 31, 2053 (with the final year's tax increment to be collected by September 1, 2054).

**Powers and Duties of Board of Directors:**

The Board shall have all powers granted to it by Chapter 311 of the Texas Tax Code, including powers of a municipality under Chapter 380, Local Government Code. The Board shall not be authorized to:

- issue bonds;
- impose taxes or fees;
- exercise the power of eminent domain; or
- give final approval to the Zone's project and financing plan.

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000035533 | | BLK: 088, LOT: NORTH-SOUTH ALLEY, ADDN: ORIGINAL TOWN | 0.138 | 14 TEXAS REAL ESTATE LLC | | $ 16,880 |
| R000035534 | 215 S MARIENFELD ST | BLK: 088, LOT: 009, ADDN: ORIGINAL TOWN | 0.161 | 14 TEXAS REAL ESTATE LLC | | $ 19,690 |
| R000035535 | 409 W MISSOURI AV | BLK: 088, LOTS: 010 THRU 12 E.56, ADDN: ORIGINAL TOWN | 0.193 | 14 TEXAS REAL ESTATE LLC | | $ 23,630 |
| R000035536 | 210 N MARIENFELD ST | BLK: 088, LOTS: 010 THRU 12 W.84, ADDN: ORIGINAL TOWN | 0.289 | 14 TEXAS REAL ESTATE LLC | | $ 35,440 |
| R000035532 | 401 W MISSOURI AV | BLK: 088, LOTS: 001 THRU 8, ADDN: ORIGINAL TOWN | 1.285 | 14 TEXAS REAL ESTATE LLC | | $ 115,500 |
| R000035116 | | BLK: 026, LOTS: 001 THRU 3, ADDN: ORIGINAL TOWN | 0.482 | 312 PARTNERSHIP ET AL | | $ 59,060 |
| R000035663 | 407 S MARIENFELD ST | BLK: 109, LOT: 003 & S.16.5 OF 4, ADDN: ORIGINAL TOWN | 0.138 | 4WC PROPERTIES LLC | | $ 54,160 |
| R000026089 | 500 N COLORADO ST | BLK: 041, S.240 OF W/2, ADDN: HOMESTEAD | 0.771 | 500 COLORADO LLC | | $ 2,145,840 |
| R000026121 | 500 W OHIO AV | BLK: 047, S.80 OF SE/4, ADDN: HOMESTEAD | 0.257 | 500 WEST OHIO LLC | | $ 1,401,012 |
| R000026063 | 606 W TENNESSEE AV | BLK: 037, SW/4, ADDN: HOMESTEAD | 0.482 | 606 W TENNESSEE | | $ 836,603 |
| R000051778 | 808 W WALL ST | BLK: 014, LOTS: 007 THRU 9, ADDN: WEST END | 0.492 | 808 PARTNERS LLC | | $ 743,235 |
| R000025981 | 0 N COLORADO ST | BLK:029, LOT: 001A, ADDN: HOMESTEAD SEC 8 | 0.4 | A & D ALLIANCE ENERGY MANAGEMENT LLC | | $ 799,850 |
| R000034985 | 511 N DALLAS ST | BLK: 001, LOT: 001, ADDN: OLD PUEBLO PARK | 0.112 | A N FINANCE LLC | | $ 261,970 |
| R000035542 | 511 W MISSOURI AV | BLK: 089, LOTS: 010 THRU 12, ADDN: ORIGINAL TOWN | 0.482 | A R STRATEGIES LLC | | $ 305,080 |
| R000051903 | 807 W MISSOURI AV | BLK: 032, LOT: 007 E.70, ADDN: WEST END | 0.225 | ABYSS PROPERTIES LLC | | $ 39,200 |
| R000052576 | 811 W MISSOURI AV | BLK: 032, LOT: 7A, ADDN: WEST END SEC 5 | 0.225 | ABYSS PROPERTIES LLC | | $ 617,950 |
| R000041035 | 903 N MAIN ST | BLK: 002, LOTS: 007, ADDN: RICHARDSON ABILENE | 0.158 | ACOSTA MARTIN ORLANDO | | $ 196,680 |
| R000032395 | 407 N LEE ST | BLK: 006, LOT: 003, ADDN: MOODY | 0.161 | ACOSTA MARTIN SOTO | | $ 242,200 |
| R000035049 | 404 N TERRELL ST | BLK: 014, 9336 SQ IN SW/4, ADDN: ORIGINAL TOWN | 0.214 | ACOSTA ROSALINDA | | $ 167,170 |
| R000035192 | 210 N MAIN ST | BLK: 038, LOTS: 9(N41) & 10(S/2), ADDN: ORIGINAL TOWN | 0.212 | AGGIETECH LLC | | $ 170,520 |
| R000035122 | 301 W OHIO AV | BLK: 027, LOT: 001, ADDN: ORIGINAL TOWN | 0.08 | AGUILAR SALVADOR | | $ 80,660 |
| R000017946 | 204 W KANSAS AV | BLK: 001, LOT: 001 & 2 W 69, ADDN: ESTES | 0.171 | AGUILERA JAVIER | | $ 61,810 |
| R000035117 | 200 W ILLINOIS AV | BLK: 026, LOTS: 004 THRU 6, ADDN: ORIGINAL TOWN | 0.482 | AKA SQUARE INC | | $ 1,152,600 |
| R000025949 | 610 N FORT WORTH ST | BLK: 023, N 50' OF N 100' OF NW/4, ADDN: HOMESTEAD | 0.161 | AKATI SETOR | | $ 185,440 |
| R000026000 | 507 W LOUISIANA AV | BLK: 031, E.70 OF NW/4, ADDN: HOMESTEAD | 0.241 | ALAMO HEIGHTS HOMES LLC | | $ 92,580 |
| R000035082 | 309 N TERRELL ST | BLK: 020, LOT: 002, ADDN: ORIGINAL TOWN | 0.161 | ALCOCER JESSE | | $ 14,000 |
| R000035083 | 307 N TERRELL ST | BLK: 020, LOT: 003, ADDN: ORIGINAL TOWN | 0.161 | ALCOCER JESSE | | $ 21,950 |
| R000035080 | 310 N TERRELL ST | BLK: 019, LOT: 012, ADDN: ORIGINAL TOWN | 0.161 | ALCOCER JESSE | | $ 91,880 |
| R000034966 | 505 N MINEOLA ST | BLK: 003, LOTS: 002 & 003, ADDN: ORIGINAL TOWN | 0.322 | ALCOCER JESSE | | $ 116,420 |
| R000035198 | 211 E TEXAS AV | BLK: 039, LOT: 004 S/2&ALL OF 5&6, ADDN: ORIGINAL TOWN | 0.402 | ALLEN REAL PROPERTIES LTD | | $ 216,890 |
| R000025850 | 701 N BIG SPRING ST | BLK: 010, SE/4, ADDN: HOMESTEAD | 0.643 | AMERICAN MOMENTUM BANK | | $ 35,000 |
| R000026072 | 510 N MARIENFELD ST | BLK: 039, N.75 OF W/2, ADDN: HOMESTEAD | 0.241 | AMERICAN MOMENTUM BANK | | $ 74,660 |
| R000026110 | 405 N BIG SPRING ST | BLK: 046, SE/4, ADDN: HOMESTEAD | 0.482 | AMERICAN MOMENTUM BANK | | $ 126,590 |
| R000026108 | 407 N BIG SPRING ST | BLK: 046, NE/4, ADDN: HOMESTEAD | 0.482 | AMERICAN MOMENTUM BANK | | $ 2,872,770 |
| R000035366 | 509 W WALL ST | BLK: 062, LOTS: 011 & 12, ADDN: ORIGINAL TOWN | 0.321 | AMERICAN STATE BANK | | $ 4,045,459 |
| R000035543 | 601 W MISSOURI AV | BLK: 090, LOTS: 001 THRU 3, ADDN: ORIGINAL TOWN | 0.482 | AR STRATEGIES LLC | | $ 42,000 |
| R000035306 | 120 N MAIN ST | BLK: 053, LOT: 024, ADDN: ORIGINAL TOWN | 0.08 | ARMENDARIZ MARCELINO | | $ 153,570 |
| R000025923 | 601 N MINEOLA ST | BLK: 021, S.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | ARMENDARIZ TERRY | | $ 67,410 |
| R000035337 | 513 W TEXAS AV | BLK: 058, LOTS: 011 & 12 E.60, ADDN: ORIGINAL TOWN | 0.138 | ARRINGTON BUILDING LLC THE | | $ 100,010 |
| R000035332 | 511 W TEXAS AV | BLK: 058, LOTS: 001 & 2 W.65, ADDN: ORIGINAL TOWN | 0.149 | ARRINGTON BUILDING LLC THE | | $ 129,070 |
| R000035333 | 109 N MARIENFELD ST | BLK: 058, LOTS: 001 & 2 E.75, ADDN: ORIGINAL TOWN | 0.172 | ARRINGTON BUILDING LLC THE | | $ 147,820 |
| R000035336 | 102 N PECOS ST | BLK: 058, LOT: 010 & W.80 OF, ADDN: ORIGINAL TOWN, LOT 11 & 12 | 0.344 | ARRINGTON BUILDING LLC THE | | $ 281,360 |
| R000035334 | 500 W WALL ST | BLK: 058, LOTS: 003 THRU 6, ADDN: ORIGINAL TOWN | 0.643 | ARRINGTON BUILDING LLC THE | | $ 4,530,767 |
| R000035215 | 203 N DALLAS ST | BLK: 041, LOT: 01A, ADDN: ORIGINAL TOWN, SECTION 17 | 0.964 | AUSBUILT LLC | E | $ - |
| R000035056 | 401 N MARSHALL ST | BLK: 015, S.50 SE/4, ADDN: ORIGINAL TOWN, (AKA LOT 2C) | 0.161 | AVALOS ELODIA H | | $ 107,280 |
| R000025872 | 0 N MAIN ST | BLK: 014, N.60 OF SW/4, ADDN: HOMESTEAD | 0.193 | B AND B INVESTMENTS | | $ 16,800 |
| R000025873 | 105 E LOUISIANA AV | BLK: 014, S.90 OF SW/4, ADDN: HOMESTEAD | 0.289 | B AND B INVESTMENTS | | $ 25,200 |
| R000035354 | 108 S PECOS ST | BLK: 061, LOT: 004, ADDN: ORIGINAL TOWN | 0.161 | B T A OIL PRODUCERS | | $ 26,690 |
| R000035352 | 601 W WALL ST | BLK: 061, LOTS: 001 & 2, ADDN: ORIGINAL TOWN | 0.321 | B T A OIL PRODUCERS | | $ 116,700 |
| R000035355 | 602 W MISSOURI AV | BLK: 061, LOTS: 005 & 6, ADDN: ORIGINAL TOWN | 0.321 | B T A OIL PRODUCERS | | $ 189,330 |

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000035353 | 104 S PECOS ST | BLK: 061, LOT: 003, ADDN: ORIGINAL TOWN | 0.161 | B T A OIL PRODUCERS | | $ 1,644,324 |
| R000025816 | 207 E KANSAS AV | BLK: 008, W/2 OF SE/4, ADDN: HOMESTEAD | 0.241 | BADILLO MINERVA M EST | | $ 194,040 |
| R000035046 | 409 N MINEOLA ST | BLK: 014, S.50 OF N.100 OF E/2, ADDN: ORIGINAL TOWN | 0.126 | BAESA ANGELITA | | $ 61,890 |
| R000035048 | 401 N MINEOLA ST | BLK: 014, LOT: 002 S.150 OF E.140, ADDN: ORIGINAL TOWN | 0.482 | BAESA ANGELITA | | $ 73,270 |
| R000035047 | 407 N MINEOLA ST | BLK: 014, LOT: 001 S.50, ADDN: ORIGINAL TOWN | 0.158 | BAEZA ALFREDO | | $ 241,680 |
| R000026093 | 501 N BAIRD ST | BLK: 043, S.114.3 OF E/2, ADDN: HOMESTEAD | 0.367 | BAIRD STREET STORAGE LLC | | $ 153,170 |
| R000025939 | 601 N TERRELL ST | BLK: 022, LOT: 006, ADDN: HOMESTEAD | 0.161 | BALTIER JOSE R | | $ 153,820 |
| R000035017 | 407 N FORT WORTH ST | BLK: 011, S.55 OF NE/4, ADDN: ORIGINAL TOWN | 0.177 | BANDA OSVALDO | | $ 93,470 |
| R000035099 | 307 N FORT WORTH ST | BLK: 022, LOT: 003, ADDN: ORIGINAL TOWN | 0.161 | BECKER STEVE A | | $ 14,000 |
| R000035020 | 303 E OHIO AV | BLK: 011, LOT: 003 E.70 OF S.100, ADDN: ORIGINAL TOWN | 0.161 | BECKER STEVE A | | $ 24,570 |
| R000035098 | 311 N FORT WORTH ST | BLK: 022, LOTS: 001 & 2, ADDN: ORIGINAL TOWN | 0.321 | BECKER STEVE A | | $ 28,000 |
| R000035110 | 312 N WEATHERFORD ST | BLK: 022, LOT: 012 N.45, ADDN: ORIGINAL TOWN | 0.145 | BECKER STEVEN A | | $ 55,110 |
| R000109949 | 702 N BAIRD ST | BLK: 015, LOT: 008, ADDN: HOMESTEAD SEC 3 | 0.172 | BELL JACQUELINE R | | $ 157,010 |
| R000017756 | 400 W KANSAS AV | BLK: 018, LOT: 004, ADDN: ELMWOOD SEC 2 | 0.378 | BELL NONGYOW R | | $ 134,960 |
| R000035329 | 410 W WALL ST | BLK: 057, LOTS: 007 & 8, ADDN: ORIGINAL TOWN | 0.321 | BEN MAR PARTNERS | | $ 193,730 |
| R000041038 | 806 N LORAINE ST | BLK: 002, LOT: 012, ADDN: RICHARDSON ABILENE | 0.13 | BENITEZ MARTA | | $ 87,460 |
| R000109948 | 700 N BAIRD ST | BLK: 015, LOT: 007, ADDN: HOMESTEAD SEC 3 | 0.172 | BENNETT AUGUSTINE JR | | $ 162,770 |
| R000025924 | 611 N MINEOLA ST | BLK: 021, N.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | BETANCOURT ONIEL | | $ 14,000 |
| R000041032 | 919 N MAIN ST | BLK: 002, LOTS: 003 & 4, ADDN: RICHARDSON ABILENE | 0.316 | BEZINQUE CURTIS F | | $ 122,040 |
| R000025985 | 600 N BIG SPRING ST | BLK:029, S.100 OF W/2, ADDN: HOMESTEAD | 0.321 | BHBW HOLDINGS LLC | | $ 265,040 |
| R000014586 | 714 W LOUISIANA AV | BLK: 001, LOT: 018A, ADDN: COUNTRY CLUB, HEIGHTS 2 | 0.482 | BIG BROTHERS BIG SISTERS | E | $ - |
| R000035184 | 213 N MAIN ST | BLK: 037, LOT: 003, ADDN: ORIGINAL TOWN | 0.161 | BORLAND R MIKE | | $ 221,550 |
| R000025853 | 710 N BIG SPRING ST | BLK: 011, N.100 OF NW/4, ADDN: HOMESTEAD | 0.321 | BRANCH BANKING & TRUST CO | | $ 245,946 |
| R000025970 | 610 N MAIN ST | BLK: 026, N.75 OF NW/4, ADDN: HOMESTEAD | 0.241 | BRANUM MARK L | | $ 142,910 |
| R000035222 | 501 E TEXAS AV | BLK: 042, LOTS: 006 & 7, ADDN: ORIGINAL TOWN | 0.321 | BROOKS JULIUS L | | $ 28,410 |
| R000032397 | 0 N LEE ST | BLK: 006, LOT: 005, ADDN: MOODY | 0.161 | BUSTILLOS YSIDRO A JR | | $ 14,000 |
| R000032398 | 401 N LEE ST | BLK: 006, LOT: 006, ADDN: MOODY | 0.161 | BUSTILLOS YSIDRO A JR | | $ 27,010 |
| R000025852 | 300 W LOUISIANA AV | BLK: 011, E/2, ADDN: HOMESTEAD | 0.964 | CABRITO LTD | | $ 2,124,195 |
| R000058239 | 509 N DALLAS ST | BLK: 001, LOT: 002, ADDN: OLD PUEBLO PARK | 0.115 | CALLEROS MARIA DELALUZ | | $ 182,380 |
| R000025952 | 606 N FORT WORTH ST | BLK: 023, N 50' OF THE M.100 OF W/2, ADDN: HOMESTEAD | 0.16 | CAMACHO FELICIANO RAMOS JR | | $ 194,850 |
| R000205486 | 604 N FORT WORTH ST | BLK: 023, S50' OF THE M.100 OF W/2, ADDN: HOMESTEAD | 0.16 | CAMACHO KARINA | | $ 221,930 |
| R000035279 | 315 E WALL ST | BLK: 051, LOTS: 010 THRU 12 W.40, ADDN: ORIGINAL TOWN | 0.069 | CAPROCK TITLE MIDLAND LLC | | $ 22,240 |
| R000035281 | 315 E WALL ST | BLK: 051, LOTS: 013 THRU 15 E.65, ADDN: ORIGINAL TOWN | 0.112 | CAPROCK TITLE MIDLAND LLC | | $ 149,730 |
| R000041036 | 809 N MAIN ST | BLK: 002, LOT: 010, ADDN: RICHARDSON ABILENE | 0.158 | CARRASCO ALEJANDRO | | $ 160,080 |
| R000025937 | 605 N TERRELL ST | BLK: 022, LOT: 004, ADDN: HOMESTEAD | 0.161 | CARRASCO RUBEN H | | $ 62,990 |
| R000109952 | 708 N BAIRD ST | BLK: 015, LOT: 011, ADDN: HOMESTEAD SEC 3 | 0.172 | CARRASCO VANESSA MAE | | $ 160,790 |
| R000035088 | 310 N DALLAS ST | BLK: 020, LOT: 012, ADDN: ORIGINAL TOWN | 0.161 | CARTERS FURNITURE | | $ 14,000 |
| R000035078 | 306 N TERRELL ST | BLK: 019, LOT: 010, ADDN: ORIGINAL TOWN | 0.161 | CARTERS FURNITURE INC | | $ 14,000 |
| R000035077 | 601 E ILLINOIS AV | BLK: 019, LOTS: 007 THRU 9, ADDN: ORIGINAL TOWN | 0.482 | CARTERS FURNITURE INC | | $ 188,070 |
| R000035087 | 501 E ILLINOIS AV | BLK: 020, LOTS: 007 THRU 11, ADDN: ORIGINAL TOWN | 0.803 | CARTERS FURNITURE INC | | $ 476,910 |
| R000025806 | 811 N FORT WORTH ST | BLK: 007N.75 OF E/2,, ADDN: HOMESTEAD | 0.241 | CASTILLO CRUZ VIDALES | | $ 91,050 |
| R000051781 | 800 W WALL ST | BLK: 014, LOT: 011 E.26.67 &, ADDN: WEST END, W.9.66 OF LOT 12 | 0.119 | CENTENARY ENTERPRISES | | $ 106,380 |
| R000051780 | 800 W WALL ST | BLK: 014, LOT: 010 E.13 &, ADDN: WEST END, W.23.33 OF LOT 11 | 0.119 | CENTENARY ENTERPRISES | | $ 106,390 |
| R000051779 | 800 W WALL ST | BLK: 014, LOT: 010 W.37, ADDN: WEST END | 0.121 | CENTENARY ENTERPRISES | | $ 107,070 |
| R000051782 | 800 W WALL ST | BLK: 014, LOT: 012 E.40.34, ADDN: WEST END | 0.132 | CENTENARY ENTERPRISES | | $ 110,540 |
| R000025815 | 807 N WEATHERFORD ST | BLK: 008, S.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | CHAVEZ RAMONA SEGURA | | $ 53,800 |
| R000035360 | 615 W WALL ST | BLK: 061, LOTS: 010 THRU 12 E.50, ADDN: ORIGINAL TOWN | 0.172 | CHIN ROBERT AND JULIE TATE AKA JULIE CHIN | | $ 144,610 |
| R000025947 | 404 E LOUISIANA AV | BLK: 023, N.100 OF NE/4, ADDN: HOMESTEAD | 0.321 | CHURCH OF GOD SEVENTH DAY | E | $ - |
| R000034994 | 404 N COLORADO ST | BLK: 007, ALL, ADDN: ORIGINAL TOWN | 2.066 | CITY OF MIDLAND | | $ 1,230,784 |
| R000214346 | 209 E TEXAS AV | BLK: 038, LOT: 07A, ADDN: ORIGINAL TOWN, SEC 11 | 1.516 | CITY OF MIDLAND TEXAS | E | $ - |

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000035167 | 310 W TEXAS AV | BLK: 035, LOTS: 007 & 8, ADDN: ORIGINAL TOWN | 0.321 | CITY OF MIDLAND TEXAS | E | $ - |
| R000051786 | 111 N B ST | BLK: 015, LOT: 007, ADDN: WEST END | 0.161 | CLARK J A | | $ 96,080 |
| R000034975 | 511 N TERRELL ST | BLK: 004, LOT: 001 N.50, ADDN: ORIGINAL TOWN | 0.161 | CLYDE L AND MATILDE REYES MASTER TRUST | | $ 126,770 |
| R000035068 | 406 N MARSHALL ST | BLK: 016, N.15 OF S.65, ADDN: ORIGINAL TOWN | 0.025 | COATES W M | | $ 2,210 |
| R000026114 | 408 N PECOS ST | BLK: 047, SEC: S.25 OF NW/4, ADDN: HOMESTEAD | 0.08 | COG REALTY LLC | | $ 9,840 |
| R000026027 | 607 N PECOS ST | BLK: 032, S.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | COG REALTY LLC | | $ 14,000 |
| R000026026 | 609 N PECOS ST | BLK: 032, M.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | COG REALTY LLC | | $ 14,000 |
| R000026025 | 611 N PECOS ST | BLK: 032,N.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | COG REALTY LLC | | $ 14,000 |
| R000026132 | 0 W TENNESSEE AV | BLK: 049, (40 X 150) ABANDONED ST, ADDN: HOMESTEAD | 0.138 | COG REALTY LLC | | $ 16,880 |
| R000026069 | 0 N PECOS ST | BLK: 038, N.50 OF SW/4, ADDN: HOMESTEAD | 0.161 | COG REALTY LLC | | $ 19,690 |
| R000026029 | 601 N PECOS ST | BLK: 032, S.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | COG REALTY LLC | | $ 19,690 |
| R000026031 | 600 N CARRIZO ST | BLK:032, S.75 OF SW/4, ADDN: HOMESTEAD | 0.241 | COG REALTY LLC | | $ 21,000 |
| R000026066 | 508 N PECOS ST | BLK: 038, S.75 OF NW/4, ADDN: HOMESTEAD | 0.241 | COG REALTY LLC | | $ 29,530 |
| R000026030 | 605 N PECOS ST | BLK: 032, N.100 OF SE/4, ADDN: HOMESTEAD | 0.321 | COG REALTY LLC | | $ 30,960 |
| R000026070 | 500 W TENNESSEE AV | BLK: 038, S.100 OF SW/4, ADDN: HOMESTEAD | 0.321 | COG REALTY LLC | | $ 39,380 |
| R000057849 | 0 SAN ANGELO ST | BLK: 033, LOT: S 150 FT OF W/2, ADDN: HOMESTEAD | 0.482 | COG REALTY LLC | | $ 42,000 |
| R000203803 | 606 N CARRIZO ST | BLK: 032, LT 001, ADDN: HOMESTEAD, SEC 4, & E 10' OF N CARRIZO ST | 0.775 | COG REALTY LLC | | $ 42,190 |
| R000026112 | 0 W PECOS ST | BLK: 047, LOT: 001 & N.50 OF 5, ADDN: HOMESTEAD | 0.161 | COG REALTY LLC | | $ 45,730 |
| R000026134 | 709 W TENNESSEE AV | BLK: 049, LOT: N/2 OF BLK 49 1/2, ADDN: HOMESTEAD, | 0.367 | COG REALTY LLC | | $ 50,060 |
| R000026113 | 506 W OHIO AV | BLK: 047, LOTS: 002 THRU 4 & S.10, ADDN: HOMESTEAD, OF LOT 5 | 0.321 | COG REALTY LLC | | $ 75,780 |
| R000026126 | 707 W TENNESSEE AV | BLK: 049, NW/4, ADDN: HOMESTEAD | 0.482 | COG REALTY LLC | | $ 161,110 |
| R000026115 | 408 N PECOS ST | BLK: 047, SEC: N25 OF S50 OF NW/4, ADDN: HOMESTEAD | 0.08 | COG REALTY LLC | | $ 226,030 |
| R000026065 | 510 N PECOS ST | BLK: 038, N/2 OF NW/4, ADDN: HOMESTEAD | 0.241 | COG REALTY LLC | | $ 339,820 |
| R000035383 | 100 S MAIN ST | BLK: 066, LOTS: 001 THRU 3, ADDN: ORIGINAL TOWN | 0.241 | COG REALTY LLC | | $ 1,624,865 |
| R000214253 | 505 N PECOS ST | BLK:037, LOT 001, ADDN: HOMESTEAD SEC: 11 | 1.551 | COG REALTY LLC | | $ 4,310,600 |
| R000035384 | 102 S MAIN ST | BLK: 066, LOT: 025, ADDN: ORIGINAL TOWN, SEC 15 | 0.723 | COG REALTY LLC | | $ 9,330,110 |
| R000218745 | 0 CARRIZO ST | BLK: 036, LOT: 001, ADDN: HOMESTEAD, SEC: 016 | 3.287 | COG REALTY LLC | | $ 26,003,286 |
| R000032446 | 1101 E FRONT ST | BLK: 014, LOT: 04A, ADDN: MOODY SEC 5 | 0.555 | COMMUNITY CHILDRENS MINISTRY INC | E | $ - |
| R000026045 | 717 W LOUISIANA AV | BLK: 034, LOTS: 001 THRU 4, ADDN: HOMESTEAD | 0.703 | COMMUNITY NATIONAL BANK | | $ 721,676 |
| R000214855 | 811 N MAIN ST | BLK: 002, LOT: 009, ADDN: RICHARDSON ABILENE | 0.158 | CONCEPCION JOSUE M | | $ 222,710 |
| R000203136 | 511 N FORT WORTH ST | BLK: 002, LOT: 001, ADDN: OLD PUEBLO PARK, SEC 2 | 0.161 | CORDERO BRENDA ELAINE | | $ 185,000 |
| R000034960 | 500 N MINEOLA ST | BLK: 002, LOT: 01A ADDN: ORIGINAL TOWN, SEC 16 | 0.383 | CORNETT RICHARD | | $ 345,570 |
| R000035312 | 0 N COLORADO ST | BLK: 056, LOTS: 005 THRU 7, ADDN: ORIGINAL TOWN | 0.112 | COWDEN MELANIE HOPE | | $ 52,290 |
| R000035300 | 113 E WALL ST | BLK: 053, LOTS: 009 S 17 OF W 75, ADDN: ORIGINAL TOWN, & W 75 OF 10;11 & 12 | 0.158 | COWDEN WRIGHT JR ESTATE | | $ 209,010 |
| R000035301 | 100 N MAIN ST | BLK: 053, LOT: 13A, ADDN: ORIGINAL TOWN, SEC 7 | 1.01 | CRP SCP WALL ST LOFTS OWNER LP | | $ 18,747,580 |
| R000025854 | 706 N BIG SPRING ST | BLK: 011, N.60 OF SW/4 &, ADDN: HOMESTEAD, S.50 OF NW/4 | 0.354 | DAIRY QUEEN #420 | | $ 158,000 |
| R000051897 | 801 W MISSOURI AV | BLK: 032, LOT: 001, ADDN: WEST END | 0.241 | DEHLINGER MARK T | | $ 88,410 |
| R000025932 | 605 N MINEOLA ST | BLK: 021, N.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | DELAO ALEJANDRO G | | $ 262,150 |
| R000041037 | 807 N MAIN ST | BLK: 002, LOT: 011, ADDN: RICHARDSON ABILENE | 0.158 | DELCO INVESTMENTS LP | | $ 150,810 |
| R000035069 | 801 E FRONT ST | BLK: 017, ALL LESS 1351 SQ, ADDN: ORIGINAL TOWN | 0.179 | DIAZ DAVID | | $ 31,230 |
| R000017753 | 800 N MARIENFELD ST | BLK: 018, LOT: 001, ADDN: ELMWOOD SEC 2 | 0.638 | DISCOVERY PLAZA JOINT | | $ 992,115 |
| R000034987 | 505 N FORT WORTH ST | BLK: 006, N.50 OF SE/4, ADDN: ORIGINAL TOWN | 0.161 | DOMINGUEZ MANUEL A | | $ 226,380 |
| R000026075 | 510 N BIG SPRING ST | BLK: 040, N.75 OF W/2, ADDN: HOMESTEAD | 0.241 | DOMINION RESERVES LLC | | $ 223,600 |
| R000203976 | 502 N DALLAS ST | BLK: 003, LOT: 007, ADDN: OLD PUEBLO PARK SEC 3 | 0.106 | DUARTE MARIA | | $ 147,040 |
| R000026074 | 500 N MARIENFELD ST | BLK: 039, S.150 OF SW/4, ADDN: HOMESTEAD | 0.482 | DURHAM LYNN D JR & | | $ 373,700 |
| R000026071 | 505 N BIG SPRING ST | BLK: 039, E/2, ADDN: HOMESTEAD | 0.964 | DURHAM LYNN D JR & | | $ 10,031,715 |
| R000026085 | 500 N BIG SPRING ST | BLK: 040, S 100 OF SW/4, ADDN: HOMESTEAD | 0.321 | ELLIS PROPERTIES | | $ 131,170 |
| R000109945 | 705 N WEATHERFORD ST | BLK: 015, LOT: 004, ADDN: HOMESTEAD SEC 3 | 0.172 | ELY GLORIA A | | $ 163,690 |
| R000035156 | 219 N BIG SPRING ST | BLK: 034, LOTS: 001 THRU 3, ADDN: ORIGINAL TOWN | 0.482 | ENDEAVOR ENERGY RESOURCES LP | | $ 176,660 |
| R000035159 | 414 W TEXAS AV | BLK: 034, LOTS: 7-9(W100) &, ADDN: ORIGINAL TOWN, LOTS 10-12 | 0.964 | ENDEAVOR ENERGY RESOURCES LP | | $ 3,367,660 |

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000035331 | 110 N MARIENFELD ST | BLK: 057, LOTS: 010 THRU 12, ADDN: ORIGINAL TOWN | 0.482 | ENDEAVOR ENERGY RESOURCES LP | | $ 11,978,465 |
| R000035164 | | BLK: 035, LOTS: 003 & 4 PT, ADDN: ORIGINAL TOWN, (REAR 17 X 20 ) | 0.008 | ENERGAS | | $ 1,980 |
| R000035527 | 125 W MISSOURI AV | BLK: 085, LOTS: 001 THRU 20, ADDN: ORIGINAL TOWN | 1.497 | ENERTIA TECH CENTER LLC | | $ 23,854,184 |
| R000041050 | 106 W KANSAS AV | BLK: 002, LOT: 024, ADDN: RICHARDSON ABILENE | 0.161 | ESCAJEDA JACINTO | | $ 57,600 |
| R000035022 | 406 N WEATHERFORD ST | BLK: 011, LOTS: 3(N/3) & 4(S2/3), ADDN: ORIGINAL TOWN | 0.482 | ESCN INC | | $ 42,000 |
| R000035023 | 410 N WEATHERFORD ST | BLK: 011, LOT: 004 N.50, ADDN: ORIGINAL TOWN | 0.161 | ESCN INC | | $ 76,970 |
| R000109942 | 711 N WEATHERFORD ST | BLK: 015, LOT: 001, ADDN: HOMESTEAD SEC 3 | 0.172 | ESPINOZA ALBERT VILLA II | | $ 166,460 |
| R000041045 | 914 N LORAINE ST | BLK: 002, LOT: 019, ADDN: RICHARDSON ABILENE | 0.158 | ESPINOZA ESAU | | $ 39,000 |
| R000041046 | 916 N LORAINE ST | BLK: 002, LOT: 020, ADDN: RICHARDSON ABILENE | 0.158 | ESPINOZA ESAU | | $ 86,960 |
| R000217317 | 0 N CARRIZO ST | E/2 OF BLK: 033, ADDN: HOMESTEAD, SEC : 15 | 0.965 | FIELDS DAVID B | | $ 84,030 |
| R000035547 | 701 W INDIANA AV | BLK: 091, LOTS: 004 THRU 6, ADDN: ORIGINAL TOWN | 0.482 | FIRST H AND H HOLDINGS LLC | | $ 516,020 |
| R000026105 | 403 N COLORADO ST | BLK: 045, M.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | FIRST NATIONAL BANK OF STANTON | | $ 14,000 |
| R000218596 | 400 N BIG SPRING ST | BLK: 045, LT: 09A ADDN: HOMESTEAD SEC 14 | 0.482 | FIRST NATL BANK OF STANTON | | $ 2,184,703 |
| R000035152 | 208 N A ST | BLK: 031, LOT: 008, ADDN: ORIGINAL TOWN | 0.075 | FIRST PRESBYTERIAN | E | $ - |
| R000035151 | 201 N A ST | BLK: 031, LOT: 007, ADDN: ORIGINAL TOWN | 0.115 | FIRST PRESBYTERIAN | E | $ - |
| R000035153 | 212 N A ST | BLK: 031, LOTS: 009 THRU 11, ADDN: ORIGINAL TOWN | 0.31 | FIRST PRESBYTERIAN | E | $ - |
| R000035150 | 201 N CARRIZO ST | BLK: 031, LOTS: 003 THRU 6, ADDN: ORIGINAL TOWN | 0.643 | FIRST PRESBYTERIAN | E | $ - |
| R000051893 | 906 W INDIANA AV | BLK: 031, LOTS: 009 & 010, ADDN: WEST END | 0.321 | FIRST PRESBYTERIAN CHURCH | E | $ - |
| R000035010 | 201 E OHIO AV | BLK: 010, LOT: E(47X65) OF S1/3, ADDN: ORIGINAL TOWN | 0.07 | FIRST UNITED METHODIST CHURCH | E | $ - |
| R000035011 | 404 N BAIRD ST | BLK: 010, LOT: 003 N/3, ADDN: ORIGINAL TOWN | 0.161 | FIRST UNITED METHODIST CHURCH | E | $ - |
| R000035007 | 409 N WEATHERFORD ST | BLK: 010, S/3 OF NE/4, ADDN: ORIGINAL TOWN | 0.161 | FIRST UNITED METHODIST CHURCH | E | $ - |
| R000035009 | 205 E OHIO AV | BLK: 010, LOT: 3 LESS E 47 X 65, ADDN: ORIGINAL TOWN | 0.247 | FIRST UNITED METHODIST CHURCH | E | $ - |
| R000035006 | 411 N WEATHERFORD ST | BLK: 010, N.100 OF NE/4, ADDN: ORIGINAL TOWN | 0.321 | FIRST UNITED METHODIST CHURCH | E | $ - |
| R000035114 | 301 N MAIN ST | BLK: 025, LOTS: 001 THRU 3, ADDN: ORIGINAL TOWN | 0.482 | FIRST UNITED METHODIST CHURCH | E | $ - |
| R000034997 | 405 N MAIN ST | BLK: 008, S/3 OF E/2, ADDN: ORIGINAL TOWN | 0.321 | FIRST UNITED METHODIST CHURCH | E | $ - |
| R000034995 | 411 N MAIN ST | BLK: 008, N/3 OF E/2, ADDN: ORIGINAL TOWN | 0.321 | FIRST UNITED METHODIST CHURCH | E | $ - |
| R000035002 | 401 N BAIRD ST | BLK: 009, E/2 LESS 48 X 80 IN N/PT, ADDN: ORIGINAL TOWN | 0.876 | FIRST UNITED METHODIST CHURCH | E | $ - |
| R000034996 | 407 N MAIN ST | BLK: 008, M/3 OF E/2, ADDN: ORIGINAL TOWN | 0.321 | FIRST UNITED METHODIST CHURCH | E | $ - |
| R000035001 | 413 N BAIRD ST | BLK: 009, 48 X 80 IN N/PT OF E/2, ADDN: ORIGINAL TOWN | 0.088 | FIRST UNITED METHODIST CHURCH | E | $ - |
| R000035113 | 300 N MAIN ST | BLK: 024, LOTS: 001 THRU 12, ADDN: ORIGINAL TOWN | 2.066 | FIRST UNITED METHODIST CHURCH | E | $ - |
| R000035557 | 311 S PECOS ST | BLK: 092, LOT: 007, ADDN: ORIGINAL TOWN | 0.161 | FIRST UNITED METHODIST CHURCH | | $ 131,930 |
| R000025859 | 705 N LORAINE ST | BLK: 012, LOT: 004, ADDN: HOMESTEAD, SEC 9 | 0.321 | FIVE SEVEN PROPERTIES LLC | | $ 587,550 |
| R000203971 | 512 N DALLAS ST | BLK: 003, LOT: 002, ADDN: OLD PUEBLO PARK SEC 3 | 0.103 | FLORES OLIVIA F | | $ 144,580 |
| R000025925 | 606 N TERRELL ST | BLK: 021, M 100 OF W/2, ADDN: HOMESTEAD | 0.321 | FLORES ROSARIO G EST | | $ 163,650 |
| R000035277 | 125 N FORT WORTH ST | BLK: 051, LOTS: 001 THRU 5, ADDN: ORIGINAL TOWN | 0.402 | FOSTER BRUCE EVAN | | $ 343,040 |
| R000035092 | 303 N DALLAS ST | BLK: 021, LOT: 005, ADDN: ORIGINAL TOWN | 0.161 | FOUNDATION FOR M H M R | E | $ - |
| R000035091 | 305 N DALLAS ST | BLK: 021, LOT: 004, ADDN: ORIGINAL TOWN | 0.161 | FOUNDATION FOR M H M R | E | $ - |
| R000035090 | 307 N DALLAS ST | BLK: 021, LOT: 003, ADDN: ORIGINAL TOWN | 0.161 | FOUNDATION FOR M H M R | E | $ - |
| R000035094 | 401 E ILLINOIS AV | BLK: 021, LOTS: 007 THRU 12, ADDN: ORIGINAL TOWN | 0.964 | FOUNDATION FOR M H M R | E | $ - |
| R000035089 | 309 N DALLAS ST | BLK: 021, LOTS: 001 & 2, ADDN: ORIGINAL TOWN | 0.321 | FOUNDATION FOR MENTAL HEALTH | E | $ - |
| R000035005 | 410 N MAIN ST | BLK: 009, N.100 OF W/2, ADDN: ORIGINAL TOWN | 0.321 | FOUR TEN N MAIN INC | | $ 243,940 |
| R000035344 | 0 W WALL ST | BLK: 059, LOT: 009, ADDN: ORIGINAL TOWN | 0.161 | FRANKLIN MOUNTAIN PERMIAN I LLC | | $ 33,690 |
| R000035347 | 701 W TEXAS AV | BLK: 060, LOTS: 001 THRU 4, ADDN: ORIGINAL TOWN | 0.689 | FRANKLIN MOUNTAIN PERMIAN I LLC | | $ 40,030 |
| R000035341 | 103 N PECOS ST | BLK: 059, LOT: 004, ADDN: ORIGINAL TOWN | 0.161 | FRANKLIN MOUNTAIN PERMIAN I LLC | | $ 51,890 |
| R000035340 | 109 N PECOS ST | BLK: 059, LOT: 003, ADDN: ORIGINAL TOWN | 0.161 | FRANKLIN MOUNTAIN PERMIAN I LLC | | $ 51,890 |
| R000035340 | 109 N PECOS ST | BLK: 059, LOT: 003, ADDN: ORIGINAL TOWN | 0.161 | FRANKLIN MOUNTAIN PERMIAN I LLC | | $ 51,890 |
| R000035343 | 626 W WALL ST | BLK: 059, LOTS: 007 & 8, ADDN: ORIGINAL TOWN | 0.321 | FRANKLIN MOUNTAIN PERMIAN I LLC | | $ 67,380 |
| R000035342 | 0 N PECOS ST | BLK: 059, LOTS: 005 & 6, ADDN: ORIGINAL TOWN | 0.321 | FRANKLIN MOUNTAIN PERMIAN I LLC | | $ 103,780 |
| R000035558 | 301 S PECOS ST | BLK: 092, LOTS: 008 THRU 12, ADDN: ORIGINAL TOWN | 0.803 | FRANKLIN MOUNTAIN PERMIAN I LLC | | $ 145,880 |
| R000035335 | 508 W WALL ST | BLK: 058, LOTS: 007 THRU 9, ADDN: ORIGINAL TOWN | 0.482 | FRANKLIN MOUNTAIN PERMIAN I LLC | | $ 32,887,265 |

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000035379 | 115 S COLORADO ST | BLK: 065, LOTS: 013 THRU 18, ADDN: ORIGINAL TOWN | 0.482 | FRANKLIN MOUNTAIN PERMIAN II LP | | $ 5,634,060 |
| R000035374 | 303 W WALL ST | BLK: 064, ALL, ADDN: ORIGINAL TOWN | 2.066 | FRANKLIN MOUNTAIN PERMIAN II LP | | $ 49,693,378 |
| R000035316 | 110 N BIG SPRING ST | BLK: 056, LOT: 014 W.25 OF N.35, ADDN: ORIGINAL TOWN, & N.35 OF LOT 15 | 0.06 | FRANKLIN MOUNTAIN PERMIAN III LP | | $ 13,130 |
| R000035319 | 305 W TEXAS AV | BLK: 056, LOT: 018, ADDN: ORIGINAL TOWN | 0.172 | FRANKLIN MOUNTAIN PERMIAN III LP | | $ 63,090 |
| R000035317 | 114 N BIG SPRING ST | BLK: 056, LOTS: 016 & 17, ADDN: ORIGINAL TOWN | 0.344 | FRANKLIN MOUNTAIN PERMIAN III LP | | $ 123,750 |
| R000035315 | 310 W WALL ST | BLK: 056, LOT 014 S.115 OF W/2 &, ADDN: ORIGINAL TOWN, LT 15 | 0.198 | FRANKLIN MOUNTAIN PERMIAN III LP | | $ 18,493,492 |
| R000035311 | 115 N COLORADO ST | BLK: 056, LOTS: 003 & 4, ADDN: ORIGINAL TOWN | 0.149 | FRANKLIN MOUNTAIN PERMIAN IV LP | | $ 32,500 |
| R000035310 | 115 N COLORADO ST | BLK: 056, LOTS: 001 & 2, ADDN: ORIGINAL TOWN | 0.149 | FRANKLIN MOUNTAIN PERMIAN IV LP | | $ 32,500 |
| R000035313 | 300 W WALL ST | BLK: 056, LOTS: 008 THRU 12, ADDN: ORIGINAL TOWN | 0.373 | FRANKLIN MOUNTAIN PERMIAN IV LP | | $ 81,250 |
| R000035314 | 306 W WALL ST | BLK: 056, LOTS: 13 & 14(E/2), ADDN: ORIGINAL TOWN, ONE WALL PLAZA | 0.258 | FRANKLIN MOUNTAIN PERMIAN IV LP | | $ 20,450,168 |
| R000025862 | 110 W LOUISIANA AV | BLK: 013, ALL, ADDN: HOMESTEAD | 2.066 | FRANKLIN MOUNTAIN PERMIAN V LP | | $ 10,685,578 |
| R000203975 | 504 N DALLAS ST | BLK: 003, LOT: 006, ADDN: OLD PUEBLO PARK SEC 3 | 0.103 | FUENTES MEGAN | | $ 138,660 |
| R000035183 | 217 N MAIN ST | BLK: 037, LOT: 002 S/2, ADDN: ORIGINAL TOWN | 0.08 | FULCRUM PROPERTIES LLC | | $ 181,340 |
| R000035004 | 406 N MAIN ST | BLK: 009, LOTS: 3(N50) & 4(S50), ADDN: ORIGINAL TOWN | 0.321 | G T PARTNERS | | $ 1,118,457 |
| R000034976 | 509 N TERRELL ST | BLK: 004, LOT: 001 M.50, ADDN: ORIGINAL TOWN | 0.161 | GALLARDO MARCUS | | $ 213,040 |
| R000032399 | 400 N LAMESA RD | BLK: 006, LOT: 007, ADDN: MOODY | 0.161 | GALVAN JUANITA RUBIO | | $ 48,070 |
| R000214345 | 808 N WEATHERFORD ST | BLK:007, LOT: 002, ADDN: HOMESTEAD, SEC 12 | 0.161 | GAMINO STEPHANIE | | $ 245,110 |
| R000058244 | 500 N FORT WORTH ST | BLK: 001, LOT: 007, ADDN: OLD PUEBLO PARK | 0.112 | GARCIA ADRIAN | | $ 182,640 |
| R000035021 | 301 E OHIO AV | BLK: 011, LOT: 003 W.70 OF S.100, ADDN: ORIGINAL TOWN | 0.161 | GARCIA CEZAR G | | $ 180,280 |
| R000035213 | 306 E ILLINOIS AV | BLK: 040, LOT: 012 E 55, ADDN: ORIGINAL TOWN | 0.063 | GARCIA ELEACER | | $ 37,980 |
| R000035045 | 411 N MINEOLA ST | BLK: 014, LOT: 001 N.50, ADDN: ORIGINAL TOWN | 0.072 | GARCIA LUPE V | | $ 32,990 |
| R000203802 | 802 N BAIRD ST | BLK: 008, LOT: 002, ADDN: HOMESTEAD, SEC 4 | 0.182 | GARCIA MARTIN SR | | $ 29,730 |
| R000025940 | 600 N DALLAS ST | BLK: 022, LOT: 007, ADDN: HOMESTEAD | 0.161 | GARCIA TERESA | | $ 14,000 |
| R000035225 | 0 N DALLAS ST | BLK: 042, LOT: 010, ADDN: ORIGINAL TOWN | 0.161 | GARZA EDWARD T | | $ 14,000 |
| R000035220 | 203 N TERRELL ST | BLK: 042, LOT: 003, ADDN: ORIGINAL TOWN | 0.161 | GARZA EDWARD T | | $ 15,030 |
| R000035226 | 500 E ILLINOIS AV | BLK: 042, LOT: 011, ADDN: ORIGINAL TOWN | 0.161 | GARZA EDWARD T | | $ 70,260 |
| R000035221 | 507 E FRONT ST | BLK: 042, LOTS: 004 & 5, ADDN: ORIGINAL TOWN | 0.305 | GARZA EDWARD T | | $ 149,670 |
| R000035219 | 205 N TERRELL ST | BLK: 042, LOT: 002, ADDN: ORIGINAL TOWN | 0.161 | GEORGE VELOZ MNGT LP | | $ 14,000 |
| R000034999 | 406 N LORAINE ST | BLK: 008, S.50 OF NW/4, ADDN: ORIGINAL TOWN | 0.161 | GGB LEASING LP | | $ 19,690 |
| R000035000 | 410 N LORAINE ST | BLK: 008, N.100 OF W/2, ADDN: ORIGINAL TOWN | 0.321 | GGB LEASING LP | | $ 206,130 |
| R000034998 | 106 W OHIO AV | BLK: 008, SW/4, ADDN: ORIGINAL TOWN | 0.482 | GGB LEASING LP | | $ 212,830 |
| R000058264 | 900 W WALL ST | BLK: 013, LOT; 014, ADDN: WEST END SEC 9 | 0.515 | GLASS-JOHNSON HOSPICE HOUSE INC | E | $ - |
| R000026087 | 501 N LORAINE ST | BLK: 041, S.100 OF E/2, ADDN: HOMESTEAD | 0.321 | GOD'S RAINBOW PROMISES FELLOWSHIP | E | $ - |
| R000041031 | 921 N MAIN ST | BLK: 002, LOT: 002, ADDN: RICHARDSON ABILENE | 0.158 | GOLLIHAR JOHN B | | $ 65,390 |
| R000025814 | 0 N WEATHERFORD ST | BLK: 008, E/2 OF SE/4, ADDN: HOMESTEAD | 0.241 | GOMEZ ELIAS | | $ 35,310 |
| R000203801 | 800 N BAIRD ST | BLK: 008, LOT: 001 W/2, ADDN: HOMESTEAD SEC 4 | 0.108 | GOMEZ ELIAS | | $ 196,240 |
| R000035055 | 403 N MARSHALL ST | BLK: 015, M.50 SE/4, ADDN: ORIGINAL TOWN, (AKA LOT 2B) | 0.161 | GONZALES DANIEL C | | $ 14,000 |
| R000035059 | 400 N MINEOLA ST | BLK: 015, S.50 SW/4, ADDN: ORIGINAL TOWN, (AKA S.50 OF LOT 3) | 0.161 | GONZALES DANIEL C | | $ 15,220 |
| R000058246 | 504 N FORT WORTH ST | BLK: 001, LOT: 009, ADDN: OLD PUEBLO PARK | 0.115 | GONZALES GEORGE M | | $ 183,600 |
| R000035079 | 308 N TERRELL ST | BLK: 019, LOT: 011, ADDN: ORIGINAL TOWN | 0.161 | GONZALES SAVINO EST | | $ 78,770 |
| R000025929 | 609 N MINEOLA ST | BLK: 021, M.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | GONZALEZ LYDIA HUITRON | | $ 148,430 |
| R000211388 | 201 E KANSAS AV | BLK: 008, LOT: 001 E/2 , ADDN: HOMESTEAD SEC 4 | 0.108 | GONZALEZ ROBERTO & NORMA | | $ 96,390 |
| R000025933 | 600 N TERRELL ST | BLK: 021, S.50 OF SW/4, ADDN: HOMESTEAD | 0.161 | GOOL GARY | | $ 76,060 |
| R000035100 | 305 N FORT WORTH ST | BLK: 022, LOT: 004, ADDN: ORIGINAL TOWN | 0.161 | GOOL GARY | | $ 188,570 |
| R000025993 | 607 N MARIENFELD ST | BLK: 031, S.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | GRAHAM BUILDING LLC THE | | $ 14,000 |
| R000025996 | 0 N MARIENFELD ST | BLK: 031, N.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | GRAHAM BUILDING LLC THE | | $ 36,750 |
| R000025994 | 604 N PECOS ST | BLK: 031, S.5 OF W.70 OF, ADDN: HOMESTEAD, NW/4 & N.50 OF SW/4 | 0.169 | GRAHAM BUILDING LLC THE | | $ 52,900 |
| R000025995 | 511 W LOUISIANA AV | BLK: 031, W.70 OF NW/4 LESS S.5, ADDN: HOMESTEAD | 0.233 | GRAHAM BUILDING LLC THE | | $ 53,290 |
| R000025998 | 602 N PECOS ST | BLK: 031, N.56 OF S.100 OF SW/4, ADDN: HOMESTEAD | 0.18 | GRAHAM BUILDING LLC THE | | $ 53,880 |
| R000025999 | 600 N PECOS ST | BLK: 031, S.44 OF SW/4, ADDN: HOMESTEAD | 0.141 | GRAHAM BUILDING LLC THE | | $ 54,500 |

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000025992 | 601 N MARIENFELD ST | BLK: 031, S.100 OF SE/4, ADDN: HOMESTEAD | 0.321 | GRAHAM BUILDING LLC THE | | $ 3,723,110 |
| R000014588 | 700 W LOUISIANA AV | BLK: 001, LOTS: 021 THRU 26, ADDN: COUNTRY CLUB, HEIGHTS | 1.207 | GREAT WESTERN DRLG | | $ 2,127,200 |
| R000025858 | 710 N COLORADO ST | BLK: 012, N.100 OF NW/4, ADDN: HOMESTEAD | 0.321 | GRIMES AMY ET AL | | $ 184,040 |
| R000052043 | 707 W INDIANA AV | BLK: 050, LOT: 001, ADDN: WEST END | 0.161 | GROVER DAVID B | | $ 84,670 |
| R000035555 | 0 S MARIENFELD ST | BLK: 092, LOT: 005, ADDN: ORIGINAL TOWN | 0.161 | GTP ACQUISITION PARTNERS II LLC | | $ 19,690 |
| R000035556 | 504 W KENTUCKY AV | BLK: 092, LOT: 006, ADDN: ORIGINAL TOWN | 0.161 | GTP ACQUISITION PARTNERS II LLC | | $ 36,750 |
| R000035057 | 406 N MINEOLA ST | BLK: 015,N.50 SW/4, ADDN: ORIGINAL TOWN, (AKA W/2 OF N.50 OF, 3 & E/2 OF N.50 OF 3) | 0.16 | GUAJARDO MARGARITA L | | $ 13,940 |
| R000035058 | 404 N MINEOLA ST | BLK: 015, SW/4(N50 OF S100), ADDN: ORIGINAL TOWN, (AKA N50 S100 OF 3) | 0.161 | GUAJARDO MARGARITA L | | $ 14,000 |
| R000035062 | 408 N MINEOLA ST | BLK: 015, S.50 NW/4, ADDN: ORIGINAL TOWN, (AKA S.50 OF LOT 4) | 0.161 | GUAJARDO MARGARITA L | | $ 83,890 |
| R000035074 | 307 N MINEOLA ST | BLK: 019, LOTS: 003 & 4 E/2, ADDN: ORIGINAL TOWN | 0.161 | GUERRERO VALERIO | | $ 19,010 |
| R000035280 | 321 E WALL ST | BLK: 051, LOTS: 010 THRU 12 E.100, ADDN: ORIGINAL TOWN, LESS RIGHT OF WAY | 0.172 | GUZMAN AGAPITO | | $ 37,830 |
| R000026096 | 0 N MAIN ST | BLK: 043, N.50 OF SW/4 &, ADDN: HOMESTEAD, S.20 OF NW/4 | 0.225 | HARTMAN DOYLE | | $ 42,260 |
| R000026095 | 500 N MAIN ST | BLK: 043, S.100 OF SW/4, ADDN: HOMESTEAD | 0.321 | HARTMAN DOYLE | | $ 383,490 |
| R000041043 | 910 N LORAINE ST | BLK: 002, LOT: 017, ADDN: RICHARDSON ABILENE | 0.158 | HASTINGS TIMOTHY B | | $ 13,800 |
| R000041044 | 912 N LORAINE ST | BLK: 002, LOT: 018, ADDN: RICHARDSON ABILENE | 0.158 | HASTINGS TIMOTHY B | | $ 13,800 |
| R000041042 | 814 N LORAINE ST | BLK: 002, LOT: 016, ADDN: RICHARDSON ABILENE | 0.158 | HASTINGS TIMOTHY B | | $ 66,950 |
| R000035085 | 523 E ILLINOIS AV | BLK: 020, LOTS: (005 & 6) E.90, ADDN: ORIGINAL TOWN | 0.207 | HATFIELD DEREK W | | $ 87,780 |
| R000035086 | 509 E ILLINOIS AV | BLK: 020, LOTS: (005 & 6) W.50, ADDN: ORIGINAL TOWN | 0.115 | HATFIELD DEREK W | | $ 103,270 |
| R000035223 | 204 N DALLAS ST | BLK: 042, LOT: 008, ADDN: ORIGINAL TOWN | 0.161 | HBCO CORPORATION | | $ 14,000 |
| R000035224 | 206 N DALLAS ST | BLK: 042, LOT: 009, ADDN: ORIGINAL TOWN | 0.161 | HBCO CORPORATION | | $ 14,000 |
| R000052049 | 810 W KENTUCKY AV | BLK: 050, LOT: 6(69X126 SW COR), ADDN: WEST END | 0.352 | HENDERSON VERA P | | $ 159,320 |
| R000035076 | 607 E ILLINOIS AV | BLK: 019, LOTS: 003 THRU 6 W/2, ADDN: ORIGINAL TOWN | 0.321 | HERB ERNEST | | $ 56,000 |
| R000035075 | 617 E ILLINOIS AV | BLK: 019, LOTS: 005 & 6 E/2, ADDN: ORIGINAL TOWN | 0.161 | HERB ERNEST | | $ 177,910 |
| R000025942 | 606 N DALLAS ST | BLK: 022, LOT: 009, ADDN: HOMESTEAD | 0.161 | HEREDIA MARIA | | $ 14,000 |
| R000025825 | 802 N MAIN ST | BLK: 009, LOT: 008, ADDN: HOMESTEAD | 0.161 | HERNANDEZ AMABELIA | | $ 157,320 |
| R000025805 | 803 N FORT WORTH ST | BLK: 007, S.75 OF N.250 OF E/2, ADDN: HOMESTEAD | 0.241 | HERNANDEZ CRUZ | | $ 125,810 |
| R000025938 | 603 N TERRELL ST | BLK: 022, LOT: 005, ADDN: HOMESTEAD | 0.161 | HERNANDEZ EFRAIN | | $ 141,010 |
| R000035043 | 408 N DALLAS ST | BLK: 013, M.50 OF NW/4, ADDN: ORIGINAL TOWN | 0.161 | HERNANDEZ JERARDO | | $ 14,000 |
| R000203972 | 510 N DALLAS ST | BLK: 003, LOT: 003, ADDN: OLD PUEBLO PARK SEC 3 | 0.103 | HERNANDEZ JOAQUINA | | $ 142,090 |
| R000025934 | 611 N TERRELL ST | BLK: 022, LOT: 001, ADDN: HOMESTEAD | 0.161 | HERNANDEZ JOHNNY | | $ 14,000 |
| R000205485 | 608 N FORT WORTH ST | BLK: 023, S 50' OF N 100' OF NW/4, ADDN: HOMESTEAD | 0.161 | HERNANDEZ JUAN AND LUZ | | $ 185,590 |
| R000041034 | 911 N MAIN ST | BLK: 002, LOT: 006, ADDN: RICHARDSON ABILENE | 0.158 | HERRERA FRANCISCO | | $ 191,240 |
| R000051889 | 903 W MISSOURI AV | BLK: 031, LOT: 003, ADDN: WEST END | 0.161 | HERRMANN KEVIN AND AMANDA | | $ 33,690 |
| R000051888 | 901 W MISSOURI AV | BLK: 031, LOTS: 001 & 2, ADDN: WEST END | 0.321 | HERRMANN KEVIN AND AMANDA | | $ 116,250 |
| R000216162 | 201 S C ST | BLK: 031, LOT: 013 , ADDN: WEST END, SEC: 22 | 0.479 | HERRMANN KEVIN AND AMANDA | | $ 926,010 |
| R000035040 | 402 N DALLAS ST | BLK: 013, LOT: 003 S.55 OF N.100, ADDN: ORIGINAL TOWN | 0.177 | HIGGINS JAMEE L | | $ 217,610 |
| R000026076 | 507 N COLORADO ST | BLK: 040, S.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | HOMESTEAD MANAGEMENT TR | | $ 14,000 |
| R000026077 | 511 N COLORADO ST | BLK: 040, N.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | HOMESTEAD MANAGEMENT TR | | $ 16,720 |
| R000026082 | 505 N COLORADO ST | BLK: 040, N.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | HOMESTEAD MANAGEMENT TR | | $ 44,710 |
| R000026078 | 509 N COLORADO ST | BLK: 040, S.50 OF N.100 OF NE/4, ADDN: HOMESTEAD | 0.161 | HOMESTEAD MANAGEMENT TR | | $ 64,380 |
| R000025945 | 600 N FORT WORTH ST | BLK: 023, S.50 OF W/2, ADDN: HOMESTEAD | 0.161 | HUBBARD BOLES | | $ 14,000 |
| R000025953 | 602 N FORT WORTH ST | BLK: 023, N.50 OF S.100 OF W/2, ADDN: HOMESTEAD | 0.161 | HUBBARD BOLES | | $ 14,000 |
| R000035101 | 0 N FORT WORTH ST | BLK: 022, LOT: 005, ADDN: ORIGINAL TOWN | 0.161 | HUGHES DAVID C | | $ 19,690 |
| R000035103 | 311 E ILLINOIS AV | BLK: 022, LOT: 006, ADDN: ORIGINAL TOWN | 0.161 | HUGHES DAVID C | | $ 136,040 |
| R000026122 | 600 W OHIO AV | BLK: 048, ALL, ADDN: HOMESTEAD | 2.066 | HUGHES DEVELOPMENT LLC | | $ 1,176,110 |
| R000035325 | 401 W TEXAS AV | BLK: 057, LOTS: 1; 2(E90) & 3, ADDN: ORIGINAL TOWN | 0.367 | INDUSPAD MIDLAND CHARMS LLC | | $ 600,000 |
| R000025954 | 308 E LOUISIANA AV | BLK: 024, E/2 ALL (AKA 1 THRU 6), ADDN: HOMESTEAD | 0.964 | JACKSON LEILA GHAI | | $ 113,830 |
| R000209690 | 701 N LORAINE ST | BLK: 012, LOT: 003, ADDN: HOMESTEAD, SEC 9 | 0.347 | JAMESON FAMILY PARTNERSHIP LP | | $ 30,250 |
| R000035041 | 404 N DALLAS ST | BLK: 013, N.45 OF SW/4, ADDN: ORIGINAL TOWN | 0.145 | JARAMILLO JENNIFER | | $ 205,620 |
| R000026073 | 506 N MARIENFELD ST | BLK: 039, S/2 OF NW/4, ADDN: HOMESTEAD | 0.241 | JKL 20 LP | | $ 24,750 |

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000035327 | 113 N BIG SPRING ST | BLK: 057, LOT: 004 S/2, ADDN: ORIGINAL TOWN | 0.08 | JLC LLC | | $ 20,340 |
| R000035326 | 111 N BIG SPRING ST | BLK: 057, LOT: 004 N/2, ADDN: ORIGINAL TOWN | 0.08 | JLC LLC | | $ 116,890 |
| R000035328 | 400 W WALL ST | BLK: 057, LOTS: 005 & 6, ADDN: ORIGINAL TOWN | 0.321 | JLC LLC | | $ 1,269,530 |
| R000025991 | 501 W LOUISIANA AV | BLK:031, N.100 OF NE/4, ADDN: HOMESTEAD | 0.321 | JOB RESIDENCES LLC | | $ 570,990 |
| R000109947 | 701 N WEATHERFORD ST | BLK: 015, LOT: 006, ADDN: HOMESTEAD SEC 3 | 0.172 | JOHNSON LAVONDA E | | $ 163,470 |
| R000035033 | 410 N FORT WORTH ST | BLK: 012, N.50 OF NW/4, ADDN: ORIGINAL TOWN | 0.161 | JOHNSON ROSEMARY E | | $ 85,530 |
| R000025958 | 0 N BAIRD ST | BLK: 025, N/99.48 OF W/2, ADDN: HOMESTEAD | 0.32 | JONES JERRY | | $ 27,850 |
| R000025965 | 0 N WEATHERFORD ST | BLK: 025, M.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | JONES JERRY L | | $ 19,690 |
| R000025964 | 0 N WEATHERFORD ST | BLK: 025, N.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | JONES JERRY L | | $ 19,690 |
| R000025962 | 607 N WEATHERFORD ST | BLK: 025, S.53 OF NE/4, ADDN: HOMESTEAD | 0.17 | JONES JERRY L | | $ 20,870 |
| R000035139 | 500 W ILLINOIS AV | BLK: 029, E/2, ADDN: ORIGINAL TOWN | 0.964 | KAUFMAN KITTRIDGE LP ET AL | | $ 28,605,080 |
| R000052048 | 0 W INDIANA AV | BLK: 050, LOT: 005, ADDN: WEST END | 0.193 | KEA BUILDERS LLC | | $ 33,600 |
| R000052047 | 713 W INDIANA AV | BLK: 050, LOT: 004, ADDN: WEST END | 0.138 | KEA BUILDERS LLC | | $ 596,020 |
| R000051788 | 806 W MISSOURI AV | BLK: 015, LOT: 009, ADDN: WEST END | 0.161 | KIMBROUGH ENGINEERING COMPANY LLC | | $ 50,750 |
| R000051789 | 800 W MISSOURI AV | BLK: 015, LOTS: 010 THRU 12 S.75, ADDN: WEST END | 0.258 | KIMBROUGH ENGINEERING COMPANY LLC | | $ 157,590 |
| R000035367 | 401 W WALL ST | BLK: 063, LOTS: 001 THRU 3 & 11 &, ADDN: ORIGINAL TOWN, 12 E.35 | 0.631 | KINCO PARTNERS LTD | | $ 4,487,380 |
| R000025960 | 609 N WEATHERFORD ST | BLK: 025, N97 OF NE/4, ADDN: HOMESTEAD | 0.312 | KMISS LLC | | $ 78,810 |
| R000035019 | 401 N FORT WORTH ST | BLK: 011, LOT: 002 S.100, ADDN: ORIGINAL TOWN | 0.321 | KMISS LLC | | $ 129,960 |
| R000025879 | 706 N WEATHERFORD ST | BLK: 016, S. 50 OF NW/4 & ALL OF, ADDN: HOMESTEAD, SW/4 | 0.643 | KMISS LLC | | $ 228,890 |
| R000035345 | 619 W TEXAS AV | BLK: 059, LOT: 010 E.86 OF S.40, ADDN: ORIGINAL TOWN, & W.54 OF 10 THRU 12 | 0.265 | L & L AUSTEX LLC | | $ 696,030 |
| R000025931 | 0 N MINEOLA ST | BLK: 021, M.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | LAABS DAVIS | | $ 14,000 |
| R000058248 | 508 N FORT WORTH ST | BLK: 001, LOT: 011, ADDN: OLD PUEBLO PARK | 0.115 | LANGSTON RACHEL MACKENZIE | | $ 190,590 |
| R000025956 | 604 N WEATHERFORD ST | BLK: 024, ALL OF SW/4, ADDN: HOMESTEAD | 0.482 | LARSON HOLDINGS LLC | | $ 193,340 |
| R000025868 | 0 N MAIN ST | BLK: 014, S.50 OF S.100 OF NW/4, ADDN: HOMESTEAD | 0.161 | LAURA CASTILLO GROUP LLC | | $ 14,000 |
| R000025866 | 710 N MAIN ST | BLK: 014, N.50 OF NW/4, ADDN: HOMESTEAD | 0.161 | LAURA CASTILLO GROUP LLC | | $ 14,000 |
| R000025867 | 708 N MAIN ST | BLK: 014, N.50 OF S.100 OF NW/4, ADDN: HOMESTEAD | 0.161 | LAURA CASTILLO GROUP LLC | | $ 14,560 |
| R000035035 | 407 N TERRELL ST | BLK: 013, S/2 OF NE/4, ADDN: ORIGINAL TOWN | 0.241 | LEWALLEN GARCIA PARTNERS HOLDINGS LLC | | $ 55,060 |
| R000035038 | 405 N TERRELL ST | BLK: 013, N.50 OF SE/4, ADDN: ORIGINAL TOWN | 0.161 | LEWALLEN GARCIA PARTNERS HOLDINGS LLC | | $ 216,780 |
| R000035034 | 508 E TENNESSEE AV | BLK: 013, N/2 OF NE/4, ADDN: ORIGINAL TOWN | 0.241 | LEWALLEN-GARCIA PARTNERS | | $ 21,000 |
| R000025928 | 607 N MINEOLA ST | BLK: 021, S.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | LEWIS LOVIE | | $ 24,520 |
| R000035044 | 410 N DALLAS ST | BLK: 013, N.50 OF NW/4, ADDN: ORIGINAL TOWN | 0.161 | LLENZA CHARLOTTE A | | $ 14,000 |
| R000047940 | 412 N TERRELL ST | BLK: 001, LOT: 001, ADDN: TENNESSEE SEC 1 | 0.257 | LONE STAR FLOORING SERVICES LLC | | $ 208,140 |
| R000025976 | 107 W LOUISIANA AV | BLK: 027, E.70 OF N.100 OF NW/4, ADDN: HOMESTEAD | 0.161 | LONG SARAH M | | $ 167,800 |
| R000025809 | 802 N WEATHERFORD ST | BLK: 007, SW/4, ADDN: HOMESTEAD | 0.482 | LOPEZ ISABELLE TERESA | | $ 324,210 |
| R000034978 | 505 N TERRELL ST | BLK: 004, LOT: 002 N.50, ADDN: ORIGINAL TOWN | 0.161 | LOPEZ JASMINE F | | $ 68,990 |
| R000034957 | 503 N LAMESA RD | BLK: 002, M.50 OF SE/4 LESS, ADDN: ORIGINAL TOWN, TRI ON E SIDE | 0.142 | LOPEZ JESSE RODRIGUEZ | | $ 12,360 |
| R000034956 | 0 N LAMESA RD | BLK: 002, W PT OF N.50 OF SE/4, ADDN: ORIGINAL TOWN | 0.112 | LOPEZ JESSE RODRIGUEZ | | $ 13,590 |
| R000034959 | 501 N MARSHALL ST | BLK 002, S.50 OF SE/4, ADDN: ORIGINAL TOWN | 0.161 | LOPEZ JESSE RODRIGUEZ | | $ 21,160 |
| R000035061 | 410 N MINEOLA ST | BLK: 015, N.100 NW/4, ADDN: ORIGINAL TOWN, (AKA N.100 OF LOT 4) | 0.321 | LOPEZ REYMUNDO | | $ 32,460 |
| R000035188 | 200 N LORAINE ST | BLK: 037, LOTS: 007 THRU 12, ADDN: ORIGINAL TOWN | 0.964 | LORAINE AT TEXAS | | $ 26,408,990 |
| R000052050 | 802 W KENTUCKY AV | BLK: 050, LOT: 007, ADDN: WEST END | 0.153 | LOUIS E INVESMENTS LLC | | $ 48,190 |
| R000052051 | 800 W KENTUCKY AV | BLK: 050, LOT: 008, ADDN: WEST END | 0.158 | LOUIS E INVESMENTS LLC | | $ 49,990 |
| R000052046 | 711 W INDIANA AV | BLK: 050, LOT: 003, ADDN: WEST END | 0.149 | LOUIS E INVESMENTS LLC | | $ 221,170 |
| R000032444 | 1109 E FRONT ST | BLK: 014, LOT: 001, 002 & 003 E/2, ADDN: MOODY | 0.294 | LOZANO OSBALDO | | $ 174,260 |
| R000035382 | 112 S LORAINE ST | BLK: 065, LOTS: 022 THRU 24, ADDN: ORIGINAL TOWN | 0.241 | LS BRENTWAY LLC | | $ 834,620 |
| R000041030 | 923 N MAIN ST | BLK: 002, LOT: 001, ADDN: RICHARDSON ABILENE | 0.158 | LUEVANOS JOSE LUIS | | $ 78,700 |
| R000224149 | 405 N FORT WORTH ST | BLK:011, LOT:005, ADDN: ORIGINAL TOWN | 0.16 | LUPITA HOMES CONSTRUCTION | | $ 13,900 |
| R000026079 | 502 N BIG SPRING ST | BLK: 040, N.50 OF SW/4 &, ADDN: HOMESTEAD, S.75 OF NW/4 | 0.402 | LWM COMMERCIAL PROPERTIES LTD | | $ 450,400 |
| R000051901 | 206 N A ST | BLK: 032, LOT: 004, ADDN: WEST END | 0.177 | M I S D | E | $ - |
| R000051900 | 204 S A ST | BLK: 032, LOT: 003, ADDN: WEST END | 0.177 | M I S D | E | $ - |

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000035544 | 0 S PECOS ST | BLK: 090, LOTS: 004 THRU 6, ADDN: ORIGINAL TOWN, MASHBURN BLDG PKLT | 0.482 | M I S D | E | $ - |
| R000035545 | 615 W MISSOURI AV | BLK: 090, LOTS: 007 THRU 12 & PT, ADDN: ORIGINAL TOWN, CARRIZO ST ADJ TO W/SIDE, SCH: ADMINSTRATION BLDG | 1.18 | M I S D | E | $ - |
| R000026104 | 401 N COLORADO ST | BLK: 045, S.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | M&M PROPERTIES | | $ 299,320 |
| R000035039 | 400 N DALLAS ST | BLK: 013, LOT: 003 S.50, ADDN: ORIGINAL TOWN | 0.161 | MADRID MARIA GONZALES | | $ 67,170 |
| R000025813 | 811 N WEATHERFORD ST | BLK: 008, N.50 OF NE/4, ADDN: HOMESTEAD | 0.08 | MAGALLANES CATRINA | | $ 46,220 |
| R000203113 | 811 N WEATHERFORD ST | BLK: 008, E/2 OF N50 OF NE/4, ADDN: HOMESTEAD | 0.08 | MAGALLANES ELIZABETH | | $ 43,990 |
| R000025817 | 818 N BAIRD ST | BLK: 008, N.200 OF W/2, ADDN: HOMESTEAD | 0.643 | MAGALLANES FRANCO | | $ 100,250 |
| R000035194 | 218 N MAIN ST | BLK: 038, LOT: 012 N/2, ADDN: ORIGINAL TOWN ( UNIT # A) | 0.027 | MAIN STREET HOLDINGS AB LLC | | $ 194,780 |
| R000025967 | 605 N BAIRD ST | BLK:026, S.36 OF NE/4, ADDN: HOMESTEAD | 0.116 | MALDONADO DORA EST | | $ 38,830 |
| R000025966 | 108 E LOUISIANA AV | BLK: 026, N.114 OF NE/4, ADDN: HOMESTEAD | 0.366 | MALDONADO DORA EST | | $ 125,100 |
| R000025969 | 111 E MICHIGAN AV | BLK:026, SE/4, ADDN: HOMESTEAD | 0.482 | MALDONADO DORA EST | | $ 223,870 |
| R000032396 | 405 N LEE ST | BLK: 006, LOT: 004, ADDN: MOODY | 0.161 | MALDONADO JUAN A | | $ 48,820 |
| R000014585 | 718 W LOUISIANA AV | BLK: 001, LOTS: 16(E/2) & 17, ADDN: COUNTRY CLUB, HEIGHTS | 0.241 | MANULIK MATTHEW C | | $ 107,620 |
| R000041049 | 108 W KANSAS AV | BLK: 002, LOT: 023, ADDN: RICHARDSON ABILENE | 0.161 | MAROC INDUSTRIES LLC | | $ 157,720 |
| R000052044 | 709 W INDIANA AV | BLK: 050, LOT: 002 E.50, ADDN: WEST END | 0.152 | MARTIN WATER LABORATORIES INC | | $ 167,830 |
| R000052045 | | BLK: 050, LOT: 002 W.5, ADDN: WEST END | 0.015 | MARTIN WATER LABORATORIES INC. | | $ 2,650 |
| R000035031 | 406 N FORT WORTH ST | BLK: 012, LOT: 004 S.50, ADDN: ORIGINAL TOWN | 0.161 | MARTINEZ JAVIER | | $ 14,000 |
| R000025803 | 807 N FORT WORTH ST | BLK: 007, S.50 OF N.125 OF E/2, ADDN: HOMESTEAD | 0.161 | MARTINEZ JAVIER | | $ 58,110 |
| R000035025 | 406 E TENNESSEE AV | BLK: 012, LOT: 001 W.35 OF W/2, ADDN: ORIGINAL TOWN | 0.121 | MARTINEZ JAVIER | | $ 149,310 |
| R000035024 | 406 E TENNESSEE AV | BLK: 012, LOT: 001 E.35 OF W/2, ADDN: ORIGINAL TOWN | 0.121 | MARTINEZ PETRA | | $ 10,500 |
| R000032404 | 410 N LAMESA RD | BLK: 006, LOT: 012, ADDN: MOODY | 0.161 | MARTINEZ ROSALVA | | $ 18,940 |
| R000032403 | 408 N LAMESA RD | BLK: 006, LOT: 011, ADDN: MOODY | 0.161 | MARTINEZ ROSALVA | | $ 19,750 |
| R000025927 | 610 N TERRELL ST | BLK: 021, N.50 OF NW/4, ADDN: HOMESTEAD | 0.161 | MASTER MATILDE REYES | | $ 24,940 |
| R000051896 | 900 W INDIANA AV | BLK: 031, LOT: S.42.5 OF LOT 11, ADDN: WEST END, & LOT 12 | 0.098 | MATS MAINTENANCE | | $ 57,140 |
| R000025841 | 700 N MARIENFELD ST | BLK: 010, S.50 OF W/2, ADDN: HOMESTEAD | 0.161 | MC ANDREW MIKE | | $ 197,590 |
| R000052052 | 705 W KENTUCKY AV | BLK: 051, LOTS: 1-4 & TRI(W/SD), ADDN: WEST END | 0.738 | MCCONAUGHEY GEORGANNE HURT | | $ 273,080 |
| R000035381 | 120 S LORAINE ST | BLK: 065, LOT: 021, ADDN: ORIGINAL TOWN | 0.08 | MEADOWS HENRY EDWARD JR ET AL | | $ 14,970 |
| R000035380 | 120 S LORAINE ST | BLK: 065, LOTS: 019 & 20, ADDN: ORIGINAL TOWN | 0.161 | MEADOWS HENRY EDWARD JR ET AL | | $ 50,150 |
| R000014584 | 724 W LOUISIANA AV | BLK: 001, LOTS: 14 & 15 & 16(W/2), ADDN: COUNTRY CLUB, HEIGHTS | 0.402 | MEISSNER MARTIN C REVO LIV TR EST | | $ 194,540 |
| R000025930 | 608 N TERRELL ST | BLK: 021, M.50 OF NW/4, ADDN: HOMESTEAD | 0.161 | MELENDEZ VIRGINIA | | $ 160,170 |
| R000034992 | 504 N WEATHERFORD ST | BLK: 006,N.150 & S.100 OF SW/4, ADDN: ORIGINAL TOWN | 0.803 | MIDLAND ACADEMY CHARTER SCHOOL | E | $ - |
| R000026097 | 500 N BAIRD ST | BLK: 044, ALL, ADDN: HOMESTEAD | 2.066 | MIDLAND ACADEMY CHARTER SCHOOL INC | E | $ - |
| R000025963 | 601 N WEATHERFORD ST | BLK: 025, S.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | MIDLAND BUSINESS CENTER LLC | | $ 19,690 |
| R000025959 | 600 N BAIRD ST | BLK: 025, S.200.52 OF W/2, ADDN: HOMESTEAD | 0.644 | MIDLAND BUSINESS CENTER LLC | | $ 986,820 |
| R000026068 | 500 W TENNESSEE AV | BLK: 038, S.100 OF SE/4, ADDN: HOMESTEAD | 0.321 | MIDLAND CC DEVELOPMENT LLC | | $ 56,000 |
| R000026118 | 405 N MARIENFELD ST | BLK: 047, NE/4, ADDN: HOMESTEAD | 0.482 | MIDLAND CC DEVELOPMENT LLC | | $ 1,235,760 |
| R000035128 | 310 W ILLINOIS AV | BLK: 027, LOTS: 13A, ADDN: ORIGINAL TOWN, SEC 3 | 0.448 | MIDLAND CHAMBER OF COMMERCE | E | $ - |
| R000035127 | 301 N COLORADO ST | BLK: 027, LOTS: 07A, ADDN: ORIGINAL TOWN, SEC 3 | 0.451 | MIDLAND CHAMBER OF COMMERCE | E | $ - |
| R000034952 | 511 N LAMESA RD | BLK: 002, E/2 OF N50 OF NE/4, ADDN: ORIGINAL TOWN, REYES/SANCHEZ MEML PL, UNITY PLAZA | 0.08 | MIDLAND CITY OF | E | $ - |
| R000034952 | 511 N LAMESA RD | BLK: 002, E/2 OF N50 OF NE/4, ADDN: ORIGINAL TOWN, REYES/SANCHEZ MEML PL, UNITY PLAZA | 0.08 | MIDLAND CITY OF | E | $ - |
| R000034954 | 507 N LAMESA RD | BLK: 002, S.50 OF NE/4, ADDN: ORIGINAL TOWN | 0.161 | MIDLAND CITY OF | E | $ - |
| R000034953 | 507 N LAMESA RD | BLK: 002, M.50 OF NE/4, ADDN: ORIGINAL TOWN | 0.161 | MIDLAND CITY OF | E | $ - |
| R000034968 | 501 N MINEOLA ST | BLK: 003, LOTS: 005&6 AKA (S 2/3, ADDN: ORIGINAL TOWN, OF SE/4) | 0.321 | MIDLAND CITY OF | E | $ - |
| R000035187 | 0 N MAIN ST | BLK: 037, LOT: 006, ADDN: ORIGINAL TOWN | 0.161 | MIDLAND CITY OF | E | $ - |
| R000025980 | 0 N COLORADO ST | BLK: 028, W/2, ADDN: HOMESTEAD | 0.964 | MIDLAND CITY OF | E | $ - |
| R000035276 | 406 E TEXAS AV | BLK: 050, ALL, ADDN: ORIGINAL TOWN | 0.985 | MIDLAND CITY OF | E | $ - |
| R000017754 | 900 N BIG SPRING ST | BLK: 018, LOT: 002, ADDN: ELMWOOD SEC 2, VOLUNTEER PARK | 0.501 | MIDLAND CITY OF | E | $ - |
| R000217757 | 106 W WALL ST | BLK: 054, LOT:01A ADDN: ORIGINAL TOWN, SEC 14 | 1.514 | MIDLAND CITY OF | E | $ - |
| R000217756 | 105 N MAIN ST | BLK: 054, LOT 02A: ADDN: ORIGINAL TOWN, SEC 14, | 1.432 | MIDLAND CITY OF | E | $ - |
| R000025979 | 601 N LORAINE ST | BLK: 028, E/2, ADDN: HOMESTEAD | 0.964 | MIDLAND CITY OF | E | $ - |

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000035115 | 300 N LORAINE ST | BLK: 025, LOTS: 004 THRU 12, ADDN: ORIGINAL TOWN | 1.446 | MIDLAND CITY OF | E | $ - |
| R000035115 | 300 N LORAINE ST | BLK: 025, LOTS: 004 THRU 12, ADDN: ORIGINAL TOWN | 1.446 | MIDLAND CITY OF | E | $ - |
| R000217758 | 200 W WALL ST | BLK: 055, LOT: 001A, ADDN: ORIGINAL TOWN, SEC 14 | 2.066 | MIDLAND CITY OF | E | $ - |
| R000035294 | 108 E TEXAS AV | BLK: 053, LT O1A, ADDN: ORIGINAL TOWN, SEC 7 | 0.368 | MIDLAND CITY OF | E | $ - |
| R000035294 | 108 E TEXAS AV | BLK: 053, LT O1A, ADDN: ORIGINAL TOWN, SEC 7 | 0.368 | MIDLAND CITY OF | E | $ - |
| R000035093 | 407 E ILLINOIS AV | BLK: 021, LOT: 006, ADDN: ORIGINAL TOWN | 0.161 | MIDLAND CO REPUBLICAN PARTY | | $ 56,890 |
| R000035181 | 105 W ILLINOIS AV | BLK: 037, LOT: 001, ADDN: ORIGINAL TOWN | 0.161 | MIDLAND COMMUNITY COLLEGE DISTRICT | E | $ - |
| R000034939 | 611 N LAMESA RD | BLK: 001, LOT: 001, ADDN: ORIGINAL TOWN | 0.107 | MIDLAND COMMUNITY DEVELOPMENT CORP | E | $ - |
| R000185323 | | COMMON AREA A &,PUBLIC UTILITY EASEMENT,ADDN: OLD PUEBLO PARK | 0.837 | MIDLAND COMMUNITY DEVELOPMENT CORP | E | $ - |
| R000034940 | 609 N LAMESA RD | BLK: 001, LOT: 002, ADDN: ORIGINAL TOWN | 0.54 | MIDLAND COMMUNITY DEVELOPMENT CORP | E | $ - |
| R000034940 | 609 N LAMESA RD | BLK: 001, LOT: 002, ADDN: ORIGINAL TOWN | 0.54 | MIDLAND COMMUNITY DEVELOPMENT CORP | E | $ - |
| R000035540 | 208 S MARIENFELD ST | BLK: 089, LOTS: 005 & 6, ADDN: ORIGINAL TOWN | 0.321 | MIDLAND COMMUNITY DEVELOPMENT CORP | E | $ - |
| R000035541 | 0 S PECOS ST | BLK: 089, LOTS: 007 THRU 9, ADDN: ORIGINAL TOWN | 0.482 | MIDLAND COMMUNITY DEVELOPMENT CORP | E | $ - |
| R000025878 | 701 N FORT WORTH ST | BLK: 016, E/2, ADDN: HOMESTEAD | 0.964 | MIDLAND COMMUNITY DEVELOPMENT CORP | E | $ - |
| R000035176 | 208 N COLORADO ST | BLK: 036, LOTS: 010 THRU 15 (NORTH, ADDN: ORIGINAL TOWN, PARTS) & 7 O/O LOT 9 | 0.273 | MIDLAND COMMUNITY THEATER | E | $ - |
| R000025977 | 605 N MAIN ST | BLK: 027, N.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | MIDLAND COUNTY | E | $ - |
| R000025810 | 801 N FORT WORTH ST | BLK: 007, S.50 OF E/2, ADDN: HOMESTEAD | 0.161 | MIDLAND COUNTY | E | $ - |
| R000025974 | 0 N MAIN ST | BLK:027, E/4, ADDN: HOMESTEAD | 0.482 | MIDLAND COUNTY | E | $ - |
| R000026094 | 514 N MAIN ST | BLK: 043, N.130 OF NW/4, ADDN: HOMESTEAD | 0.418 | MIDLAND COUNTY | E | $ - |
| R000185297 | 0 N BAIRD ST | BLK: 043, N 185.7' OF E/2,ADDN: HOMESTEAD | 0.597 | MIDLAND COUNTY | E | $ - |
| R000025971 | 0 N MAIN ST | BLK: 026, SW/4, ADDN: HOMESTEAD | 0.482 | MIDLAND COUNTY | E | $ - |
| R000025978 | 601 N MAIN ST | BLK: 027, S.100 OF SE/4, ADDN: HOMESTEAD | 0.321 | MIDLAND COUNTY | E | $ - |
| R000035565 | 200 W FRONT ST | BLK: 095, (51000 SQ FT), ADDN: ORIGINAL TOWN | 1.171 | MIDLAND COUNTY | E | $ - |
| R000035197 | 213 N WEATHERFORD ST | BLK: 039, LOT: 003 & N/2 OF LOT 4, ADDN: ORIGINAL TOWN | 0.241 | MIDLAND COUNTY | E | $ - |
| R000052206 | 800 W FRONT ST | BLK: 67 1/2, LOT: ALL, ADDN: WEST END | 0.2 | MIDLAND COUNTY | E | $ - |
| R000026088 | 509 N LORAINE ST | BLK: 041, N.100 OF E/2, ADDN: HOMESTEAD | 0.321 | MIDLAND COUNTY | E | $ - |
| R000035529 | 301 W MISSOURI AV | BLK: 087, LOTS: 1-5(LESS E/2), ADDN: ORIGINAL TOWN, OF 87 PLUS | 0.964 | MIDLAND COUNTY | E | $ - |
| R000035190 | 200 N MAIN ST | BLK: 038, LOT: 007 & S/2 OF LOT 8, ADDN: ORIGINAL TOWN | 0.241 | MIDLAND COUNTY | E | $ - |
| R000026092 | 500 N LORAINE ST | BLK: 042, ALL, ADDN: HOMESTEAD | 2.066 | MIDLAND COUNTY | E | $ - |
| R000025989 | 0 N COLORADO ST | BLK: 029, S.175 OF E/2, ADDN: HOMESTEAD | 0.562 | MIDLAND COUNTY | | $ 110,260 |
| R000035168 | 210 N BIG SPRING ST | BLK: 035, LOTS: 009 THRU 12, ADDN: ORIGINAL TOWN | 0.643 | MIDLAND DEVELOPMENT CORP | E | $ - |
| R000211781 | 211 N COLORADO ST | BLK: 035, LOT: 01A, ADDN: ORIGINAL TOWN, SEC 8 | 0.635 | MIDLAND DEVELOPMENT CORP | E | $ - |
| R000035166 | 304 W TEXAS AV | BLK: 035, LOTS: 005 & 6, ADDN: ORIGINAL TOWN | 0.321 | MIDLAND DEVELOPMENT CORP | E | $ - |
| R000035209 | 303 E TEXAS AV | BLK: 040, LOTS: 007 THRU 11, ADDN: ORIGINAL TOWN | 0.803 | MIDLAND HABITAT FOR HUMANITY | E | $ - |
| R000035207 | 205 N FORT WORTH ST | BLK: 040, LOT: 004, ADDN: ORIGINAL TOWN | 0.161 | MIDLAND NAUTICAL SOCIETY LLC | | $ 14,000 |
| R000035206 | 207 N FORT WORTH ST | BLK: 040, LOT: 003, ADDN: ORIGINAL TOWN | 0.161 | MIDLAND NAUTICAL SOCIETY LLC | | $ 14,000 |
| R000035528 | 309 W MISSOURI AV | BLKS: 086; 087, 094 & 095, LOT: LESS 51000 SQ FT &, CLOSED STREETS & ALLEYS | 4.854 | MIDLAND SUPERBLOCK | | $ 400,400 |
| R000035528 | 309 W MISSOURI AV | BLKS: 086; 087, 094 & 095, LOT: LESS 51000 SQ FT &, CLOSED STREETS & ALLEYS | 4.854 | MIDLAND SUPERBLOCK | | $ 400,400 |
| R000035528 | 309 W MISSOURI AV | BLKS: 086; 087, 094 & 095, LOT: LESS 51000 SQ FT &, CLOSED STREETS & ALLEYS | 4.854 | MIDLAND SUPERBLOCK | | $ 400,400 |
| R000035204 | 312 E ILLINOIS AV | BLK: 040, LOT: 001 & 002, ADDN: ORIGINAL TOWN | 0.321 | MIDLAND YACHT CLUB LLC | | $ 162,350 |
| R000035178 | 214 N COLORADO ST | BLK: 036, LOT: 017 S/2, ADDN: ORIGINAL TOWN | 0.08 | MIDLAND YUCCA REALTY INC | | $ 9,020 |
| R000035179 | 216 N COLORADO ST | BLK: 036, LOT: 017 N/2, ADDN: ORIGINAL TOWN | 0.08 | MIDLAND YUCCA REALTY INC | | $ 9,020 |
| R000035177 | 212 N COLORADO ST | BLK: 036, LOT: 016, ADDN: ORIGINAL TOWN | 0.161 | MIDLAND YUCCA REALTY INC | | $ 17,870 |
| R000035180 | 220 N COLORADO ST | BLK: 036, LOT: 018, ADDN: ORIGINAL TOWN | 0.161 | MIDLAND YUCCA REALTY INC | | $ 17,870 |
| R000035172 | 207 N LORAINE ST | BLK: 036, LOT: 003, ADDN: ORIGINAL TOWN | 0.161 | MIDLAND YUCCA REALTY INC | | $ 19,230 |
| R000035171 | 209 N LORAINE ST | BLK: 036, LOT: 002, ADDN: ORIGINAL TOWN | 0.161 | MIDLAND YUCCA REALTY INC | | $ 19,230 |
| R000035170 | 211 N LORAINE ST | BLK: 036, LOT: 001, ADDN: ORIGINAL TOWN | 0.161 | MIDLAND YUCCA REALTY INC | | $ 25,270 |
| R000035173 | 200 W TEXAS AV | BLK: 036, LOTS: 004 & 5, ADDN: ORIGINAL TOWN | 0.149 | MIDLAND YUCCA REALTY INC | | $ 30,860 |
| R000035174 | 206 W TEXAS AV | BLK: 036, LOTS: 006 THRU 8 & E.18, ADDN: ORIGINAL TOWN, OF LOT 9 | 0.278 | MIDLAND YUCCA REALTY INC | | $ 58,580 |
| R000035175 | 212 W TEXAS AV | BLK: 036, LOT: 009 W.7 & ALL OF, ADDN: ORIGINAL TOWN, LOTS 10 THRU 15 LESS N.PT | 0.195 | MIDLAND YUCCA REALTY INC | | $ 3,429,494 |

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000035330 | 106 N MARIENFELD ST | BLK: 057, LOT: 009, ADDN: ORIGINAL TOWN | 0.161 | MIDLANDMC LLC | | $ 88,500 |
| R000025837 | 0 N MARIENFELD ST | BLK: 010, S.50 OF N.100 OF NW/4, ADDN: HOMESTEAD | 0.161 | MIDPAR LTD | | $ 14,000 |
| R000025833 | 710 N MARIENFELD ST | BLK: 010, N.50 OF NW/4, ADDN: HOMESTEAD | 0.161 | MIDPAR LTD | | $ 14,000 |
| R000025846 | 0 N MARIENFELD ST | BLK: 010, N.50 OF S.100 OF W/2, ADDN: HOMESTEAD | 0.161 | MIDPAR LTD | | $ 19,690 |
| R000025842 | 0 N MARIENFELD ST | BLK: 010, M.100 OF W/2, ADDN: HOMESTEAD | 0.321 | MIDPAR LTD | | $ 39,380 |
| R000026001 | 0 N MARIENFELD ST | BLK: 31A, LOT: 001A, ADDN: HOMESTEAD SEC 6 | 1.536 | MIDPAR LTD | | $ 83,640 |
| R000025990 | 600 N MARIENFELD ST | BLK: 030, ALL, ADDN: HOMESTEAD | 2.066 | MIDPAR LTD | | $ 34,470,266 |
| R000035324 | 405 W TEXAS AV | BLK: 057, LOTS: 001 & 2 W.50, ADDN: ORIGINAL TOWN | 0.115 | MILLER ROBERT REECE | | $ 29,060 |
| R000035680 | | BLK: 112 .06 AC TR N.,SIDE OF FRONT & PECOS,ADDN: ORIGINAL TOWN | 0.064 | MISSOURI PACIFIC RR CO | | $ 5,550 |
| R000035548 | 610 W KENTUCKY AV | BLK: 091, LOTS: 007 THRU 9, ADDN: ORIGINAL TOWN | 0.504 | MJL CORP | | $ 204,200 |
| R000214854 | 901 N MAIN ST | BLK: 002, LOT: 008, ADDN: RICHARDSON ABILENE | 0.158 | MOCTEZUMA NICOLAS | | $ 220,870 |
| R000034970 | 500 N TERRELL ST | BLK: 003, SW/4 LESS S.75, ADDN: ORIGINAL TOWN | 0.241 | MONARREZ LAURA G | | $ 138,760 |
| R000025819 | 809 N BAIRD ST | BLK: 009, N.75 OF NE/4, ADDN: HOMESTEAD, (AKA 1 & N/2 OF 2) | 0.241 | MONTOYA ARMIDA | | $ 98,820 |
| R000026120 | 403 N MARIENFELD ST | BLK: 047, N.70 OF SE/4, ADDN: HOMESTEAD | 0.225 | MOORE WAYNE AND JO ANN | E | $ - |
| R000214344 | 810 N WEATHERFORD ST | BLK:007, LOT: 001 ADDN: HOMESTEAD, SEC 12 | 0.162 | MORALES CESAR GUADALUPE | | $ 241,970 |
| R000017947 | 805 N LORAINE ST | BLK: 001, LOT: 003 E.115, ADDN: ESTES | 0.132 | MORALES EDUARDO ET AL | | $ 242,880 |
| R000025829 | 806 N MAIN ST | BLK: 009, LOT: 10(S50 OF NW/4), ADDN: HOMESTEAD | 0.161 | MORENO JOSE A | | $ 175,450 |
| R000025830 | 808 N MAIN ST | BLK: 009, LOT: 11(M50 OF NW/4), ADDN: HOMESTEAD | 0.161 | MORENO JOSE ANTONIO | | $ 24,080 |
| R000109946 | 703 N WEATHERFORD ST | BLK: 015, LOT: 005, ADDN: HOMESTEAD SEC 3 | 0.172 | MORIN DANIEL ANTHONY | | $ 163,470 |
| R000025944 | 500 E LOUISIANA AV | BLK: 022, LOTS: 010;011 & 012, ADDN: HOMESTEAD | 0.482 | MR PROPERTY HOLDINGS LLC | | $ 488,150 |
| R000035378 | 223 W WALL ST | BLK: 065, LOT: 009 W.24.25 & ALL, ADDN: ORIGINAL TOWN, OF LOTS 10 THRU 12 | 0.296 | MT223 LLC | | $ 8,866,995 |
| R000211116 | 400 N FORT WORTH ST | BLK: 012, LOT: 003 S.68, ADDN: ORIGINAL TOWN | 0.219 | MUNOZ PEDRO | | $ 44,530 |
| R000035030 | 400 N FORT WORTH ST | BLK: 012, LOT: 003 N.82, ADDN: ORIGINAL TOWN | 0.263 | MUNOZ PEDRO | | $ 182,650 |
| R000017667 | 600 W LOUISIANA AV | BLK: 001, LOT: 018, ADDN: ELMWOOD SEC 4 | 2.15 | MY COMMUNITY FEDERAL CREDIT UNION | | $ 2,500,000 |
| R000109950 | 704 N BAIRD ST | BLK: 015, LOT: 009, ADDN: HOMESTEAD SEC 3 | 0.172 | NAJERA AGAPITO JR | | $ 155,360 |
| R000035003 | 400 N MAIN ST | BLK: 009, S.100 OF W/2, ADDN: ORIGINAL TOWN | 0.321 | NAVIGATOR OIL & MINERALS INC | | $ 166,560 |
| R000051770 | 908 W WALL ST | BLK: 013, LOT: 7(S96) & 8(W46), ADDN: WEST END, LOT 8(LESS N47 OF W23) | 0.236 | NELSON ROY E | | $ 163,170 |
| R000034979 | 515 E TENNESSEE AV | BLK: 004, LOT: 002 S.100, ADDN: ORIGINAL TOWN | 0.321 | NLA LIVING TRUST | | $ 113,930 |
| R000035284 | 300 E TEXAS AV | BLK: 051, LOTS: 018 THRU 24, ADDN: ORIGINAL TOWN | 0.562 | NNN REIT LP | | $ 285,500 |
| R000035120 | 310 N COLORADO ST | BLK: 026, LOT: 011, ADDN: ORIGINAL TOWN | 0.161 | NOLLEY CAMILA O | | $ 870,130 |
| R000218744 | 504 N A ST | BLK: 035, LOT: 001 , ADDN: HOMESTEAD, SEC 16 | 1.33 | NORTH A & TENNESSEE | E | $ - |
| R000035012 | 408 N BAIRD ST | BLK: 010, S.50 OF NW/4, ADDN: ORIGINAL TOWN | 0.161 | NORTH MAIN LLC | | $ 19,690 |
| R000035013 | 410 N BAIRD ST | BLK: 010, M.50 OF NW/4, ADDN: ORIGINAL TOWN | 0.161 | NORTH MAIN LLC | | $ 19,690 |
| R000035193 | 212 N MAIN ST | BLK: 038, LOTS: 10(N/2) & 11, ADDN: ORIGINAL TOWN | 0.241 | NORTH MAIN LLC | | $ 626,210 |
| R000035133 | 400 W ILLINOIS AV | BLK: 028, LOT: 003 S/2 & ALL OF, ADDN: ORIGINAL TOWN, LOTS 4 THRU 6 | 0.562 | NORTH WATERFRONT-TEXAS LLC | | $ 21,527,274 |
| R000026111 | 410 W OHIO AV | BLK: 046, SW/4, ADDN: HOMESTEAD | 0.482 | O NEILL LEASING CO | | $ 1,313,124 |
| R000025822 | 801 N BAIRD ST | BLK: 009, LOT: 005 W/2 & ALL OF 6, ADDN: HOMESTEAD | 0.241 | OCHOA VICTOR & | | $ 60,050 |
| R000025821 | 805 N BAIRD ST | BLK: 009, LOT: 004 & N/2 OF LOT 5, ADDN: HOMESTEAD | 0.241 | OCHOA VICTOR & | | $ 62,840 |
| R000017945 | 202 W KANSAS AV | BLK: 001, LOT: 001 & 2 LESS W.69, ADDN: ESTES | 0.229 | OCHOA VICTOR R | | $ 205,320 |
| R000026067 | 0 N MARIENFELD ST | BLK: 038, N/3 OF SE/4, ADDN: HOMESTEAD | 0.161 | OGX REAL ESTATE LLC | | $ 19,690 |
| R000026109 | 400 N MARIENFELD ST | BLK: 046, NW/4, ADDN: HOMESTEAD | 0.482 | OGX REAL ESTATE LLC | | $ 1,240,930 |
| R000035282 | 301 E WALL ST | BLK: 051, LOTS: 013 THRU 15 W.75, ADDN: ORIGINAL TOWN | 0.129 | OK CARIOCA LLC | | $ 98,640 |
| R000058243 | 501 N DALLAS ST | BLK: 001, LOT: 006, ADDN: OLD PUEBLO PARK | 0.112 | OLIVAREZ NOEMI | | $ 185,420 |
| R000025869 | 701 N BAIRD ST | BLK:014, S.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | OLIVAS MARTINA L | | $ 96,370 |
| R000025865 | 707 N BAIRD ST | BLK: 014, S.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | OLIVAS SIXTO | | $ 14,000 |
| R000025871 | 703 N BAIRD ST | BLK 014, M.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | OLIVAS SIXTO | | $ 49,250 |
| R000025870 | 705 N BAIRD ST | BLK: 014, N.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | OLIVAS SIXTO | | $ 57,370 |
| R000041040 | 810 N LORAINE ST | BLK: 002, LOT: 014, ADDN: RICHARDSON ABILENE | 0.158 | ONTIVEROS SEVERIANA | | $ 74,160 |
| R000109944 | 707 N WEATHERFORD ST | BLK: 015, LOT: 003, ADDN: HOMESTEAD SEC 3 | 0.172 | OUDEMS LATOYA DENISE | | $ 187,250 |
| R000025950 | 601 N DALLAS ST | BLK: 023, S.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | PACHECO SANDRA C | | $ 182,290 |

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000035131 | | BLK: 027, LOTS: 023 & 24, ADDN: ORIGINAL TOWN | 0.161 | PACHUCO LLC | | $ 31,000 |
| R000035130 | 316 N BIG SPRING ST | BLK: 027, LOT: 022, ADDN: ORIGINAL TOWN | 0.08 | PACHUCO LLC | | $ 93,980 |
| R000035216 | 401 E TEXAS AV | BLK: 041, LOTS: 007 & 8, ADDN: ORIGINAL TOWN | 0.321 | PATEL MOHANBHAI BALUBHAI ET AL | | $ 115,548 |
| R000034967 | 503 N MINEOLA ST | BLK: 003, LOT: 4(AKA N/3 OF SE/4), ADDN: ORIGINAL TOWN | 0.161 | PATILLO ARTHUR ETAL | | $ 14,000 |
| R000035119 | 308 N COLORADO ST | BLK: 026, LOT: 008 N/2 & ALL OF, ADDN: ORIGINAL TOWN, LOTS 9 & 10 | 0.402 | PEGASUS BUILDING MNGT LLC | | $ 668,150 |
| R000109951 | 706 N BAIRD ST | BLK: 015, LOT: 010, ADDN: HOMESTEAD SEC 3 | 0.172 | PEREZ NOEMI N | | $ 157,940 |
| R000051902 | 208 S A ST | BLK: 032, LOT: S 59.5 OF E/2, ADDN: WEST END | 0.191 | PERMIAN BASIN OFFICE PRODUCTS INC | | $ 239,800 |
| R000035186 | 203 N MAIN ST | BLK: 037, LOT: 005, ADDN: ORIGINAL TOWN | 0.161 | PERMIAN BASIN PUBLIC TELECOM INC | E | $ - |
| R000035346 | 617 W TEXAS AV | BLK: 059, LOT: 010 N.10 OF E.86, ADDN: ORIGINAL TOWN, & E 86 OF 11 & 12 | 0.217 | PERMIAN COURT REPORTERS INC | | $ 45,530 |
| R000035338 | 605 W TEXAS AV | BLK: 059, LOTS: 001 & 2 W.50, ADDN: ORIGINAL TOWN | 0.115 | PERMIAN COURT REPORTERS INC | | $ 64,140 |
| R000035135 | 306 N MARIENFELD ST | BLK: 028, LOT: 010 S/2, ADDN: ORIGINAL TOWN | 0.08 | PERMIAN RESOURCES CORPORATION LLC | | $ 9,840 |
| R000035136 | 306 N MARIENFELD ST | BLK: 028, LOT: 010 N/2, ADDN: ORIGINAL TOWN | 0.08 | PERMIAN RESOURCES CORPORATION LLC | | $ 9,840 |
| R000035137 | 308 N MARIENFELD ST | BLK: 028, LOT: 011, ADDN: ORIGINAL TOWN | 0.161 | PERMIAN RESOURCES CORPORATION LLC | | $ 19,730 |
| R000035138 | 310 N MARIENFELD ST | BLK: 028, LOT: 012, ADDN: ORIGINAL TOWN | 0.161 | PERMIAN RESOURCES CORPORATION LLC | | $ 75,890 |
| R000035132 | 311 N BIG SPRING ST | BLK: 028, LOTS: 001 & 2 & N/2 OF 3, ADDN: ORIGINAL TOWN | 0.402 | PERMIAN RESOURCES CORPORATION LLC | | $ 1,612,420 |
| R000035134 | 300 N MARIENFELD ST | BLK: 028, LOTS: 007 THRU 9, ADDN: ORIGINAL TOWN | 0.482 | PERMIAN RESOURCES CORPORATION LLC | | $ 19,948,339 |
| R000035364 | 510 W MISSOURI AV | BLK: 062, LOT: 007 & S.20 OF 8, ADDN: ORIGINAL TOWN | 0.225 | PETROLEUM CLUB OF MIDLAND | | $ 37,360 |
| R000035365 | 107 S PECOS ST | BLK: 062, LOT: 008 N.30 & ALL OF, ADDN: ORIGINAL TOWN, LOTS 9 & 10 | 0.418 | PETROLEUM CLUB OF MIDLAND | | $ 113,750 |
| R000035362 | 501 W WALL ST | BLK: 062, LOTS: 001 THRU 3, ADDN: ORIGINAL TOWN | 0.482 | PETROLEUM CLUB OF MIDLAND | | $ 1,458,980 |
| R000035363 | 106 S MARIENFELD ST | BLK: 062, LOTS: 004 THRU 6, ADDN: ORIGINAL TOWN | 0.482 | PETROLEUM CLUB OF MIDLAND INC | | $ 250,430 |
| R000058240 | 507 N DALLAS ST | BLK: 001, LOT: 003, ADDN: OLD PUBELO PARK | 0.115 | PINA LAURA | | $ 175,960 |
| R000035348 | 702 W WALL ST | BLK: 060, LOTS: 005 & 6, ADDN: ORIGINAL TOWN | 0.275 | POPS STATION LLC | | $ 126,600 |
| R000203138 | 507 N FORT WORTH ST | BLK: 002, LOT: 003, ADDN: OLD PUEBLO PARK, SEC 2 | 0.161 | PRIETO PEDRO | | $ 187,300 |
| R000017755 | 805 N BIG SPRING ST | BLK: 018, LOT: 003, ADDN: ELMWOOD SEC 2 | 0.402 | PROSPERITY BANK | | $ 136,690 |
| R000026103 | 405 N COLORADO ST | BLK: 045, N.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | PURVIS HOLDINGS LLC | | $ 14,000 |
| R000026099 | 407 N COLORADO ST | BLK: 045, S.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | PURVIS HOLDINGS LLC | | $ 43,800 |
| R000026102 | 406 N BIG SPRING ST | BLK: 045, S.50 OF NW/4, ADDN: HOMESTEAD | 0.161 | PURVIS HOLDINGS LLC | | $ 1,478,796 |
| R000035278 | 105 N FORT WORTH ST | BLK: 051, LOTS: 006 THRU 9, ADDN: ORIGINAL TOWN | 0.321 | QUADRIGA INVESTMENTS INC | | $ 121,990 |
| R000025812 | 809 N WEATHERFORD ST | BLK: 008, S.50 OF N.100 OF NE/4, ADDN: HOMESTEAD | 0.161 | QUAIN JACK ROBERT | | $ 77,570 |
| R000058242 | 503 N DALLAS ST | BLK: 001, LOT: 005, ADDN: OLD PUEBLO PARK | 0.115 | QUEZADA DAVID | | $ 180,550 |
| R000025831 | 810 N MAIN ST | BLK: 009, LOT: 12(N50 OF NW/4), ADDN: HOMESTEAD | 0.161 | RAMOS MARK | | $ 14,000 |
| R000203973 | 508 N DALLAS ST | BLK: 003, LOT: 004, ADDN: OLD PUEBLO PARK SEC 3 | 0.103 | RAY ELLA L | | $ 141,170 |
| R000026035 | 709 W LOUISIANA AV | BLK: 033, LOT: N 150 FT OF W/2, ADDN: HOMESTEAD | 0.482 | REESE DEBBIE P | | $ 495,690 |
| R000051771 | 102 N C ST | BLK: 013, LOTS: 7(N47)& 8(NW47X23), ADDN: WEST END | 0.079 | REFLECTION MINISTRIES OF TEXAS INC | | $ 50,610 |
| R000035169 | | BLK: 036 EAST-WEST &,NORTH-SOUTH ALLEYS,ADDN: ORIGINAL TOWN | 0.207 | RENAISSANCE WEST JOINT | | $ 25,310 |
| R000220096 | 0 E KENTUCKY AV | BLK: 110, LOT 01A, ADDN: ORIGINAL TOWN, SEC: 19 | 2.038 | RENEW LIFE CHURCH INC | E | $ - |
| R000035677 | 410 S PECOS ST | BLK: 111, LOT: 002 S.75 & ALL OF, ADDN: ORIGINAL TOWN, 3 & TRI OFF E.SIDE, OF BLK 51 WEST END, SUBDIVISION | 0.562 | RENEW LIFE CHURCH INC | E | $ - |
| R000035677 | 410 S PECOS ST | BLK: 111, LOT: 002 S.75 & ALL OF, ADDN: ORIGINAL TOWN, 3 & TRI OFF E.SIDE, OF BLK 51 WEST END, SUBDIVISION | 0.562 | RENEW LIFE CHURCH INC | E | $ - |
| R000034973 | 510 N TERRELL ST | BLK: 003, N.50 OF NW/4, ADDN: ORIGINAL TOWN | 0.161 | REYES LUIS | | $ 101,770 |
| R000034972 | 508 N TERRELL ST | BLK: 003, S.50 OF N 100 OF NW/4, ADDN: ORIGINAL TOWN | 0.161 | REYES LUIS ETAL | | $ 70,610 |
| R000025808 | 806 N WEATHERFORD ST | BLK:007, S.50 OF NW/4, ADDN: HOMESTEAD | 0.161 | REYES MATILDE | | $ 157,900 |
| R000034971 | 506 N TERRELL ST | BLK: 003, S.50 OF NW/4, ADDN: ORIGINAL TOWN | 0.161 | REYES MATILDE ETAL | | $ 90,480 |
| R000025936 | 607 N TERRELL ST | BLK: 022, LOT: 003, ADDN: HOMESTEAD | 0.161 | REYES MIQUELA | | $ 98,510 |
| R000109943 | 709 N WEATHERFORD ST | BLK: 015, LOT: 002, ADDN: HOMESTEAD SEC 3 | 0.172 | REYES RAUL B | | $ 165,000 |
| R000041039 | 808 N LORAINE ST | BLK: 002, LOT: 013, ADDN: RICHARDSON ABILENE | 0.142 | REYES RITO RICARDO | | $ 139,050 |
| R000035125 | 315 N COLORADO ST | BLK: 027, LOT: 005, ADDN: ORIGINAL TOWN | 0.08 | REYNOLDS BROTHERS | | $ 68,650 |
| R000035124 | 317 N COLORADO ST | BLK: 027, LOT: 004, ADDN: ORIGINAL TOWN | 0.08 | REYNOLDS BROTHERS | | $ 96,120 |
| R000035126 | 313 N COLORADO ST | BLK: 027, LOT: 006, ADDN: ORIGINAL TOWN | 0.08 | REYNOLDS BROTHERS | | $ 100,720 |
| R000035562 | 0 S BIG SPRING ST | BLK: 093, LOT: 006, ADDN: ORIGINAL TOWN | 0.126 | RIMT PROPERTY LP | | $ 26,650 |
| R000035560 | 0 S BIG SPRING ST | BLK: 093, LOT: NORTH-SOUTH ALLEY, ADDN: ORIGINAL TOWN | 0.138 | RIMT PROPERTY LP | | $ 28,880 |

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000035563 | 0 S MARIENFELD ST | BLK: 093, LOTS: 007 & 8, ADDN: ORIGINAL TOWN | 0.321 | RIMT PROPERTY LP | | $ 39,380 |
| R000035561 | 0 S BIG SPRING ST | BLK: 093, LOTS: 004 & 5, ADDN: ORIGINAL TOWN | 0.253 | RIMT PROPERTY LP | | $ 52,940 |
| R000035564 | 405 W INDIANA AV | BLK: 093, LOTS: 009 THRU 12, ADDN: ORIGINAL TOWN | 0.643 | RIMT PROPERTY LP | | $ 57,750 |
| R000035559 | 0 S BIG SPRING ST | BLK: 093, LOTS: 001 THRU 3, ADDN: ORIGINAL TOWN | 0.379 | RIMT PROPERTY LP | | $ 79,410 |
| R000035121 | 312 N COLORADO ST | BLK: 026, LOT: 012, ADDN: ORIGINAL TOWN | 0.161 | RITA & SMA PROPERTIES INC | | $ 19,690 |
| R000035123 | 319 N COLORADO ST | BLK: 027, LOTS: 002 & 3, ADDN: ORIGINAL TOWN | 0.161 | RITA & SMA PROPERTIES INC | | $ 176,430 |
| R000026091 | 0 W MICHIGAN AV | BLK: 041, N.60 OF W/2, ADDN: HOMESTEAD | 0.193 | RNCS PROPERTY AND SERVICES LLC | | $ 44,260 |
| R000216335 | 505 N LORAINE ST | BLK: 041, LOT: 001 , ADDN: HOMESTEAD, 13TH | 0.321 | RNCS PROPERTY AND SERVICES LLC | | $ 1,016,120 |
| R000026064 | 507 N MARIENFELD ST | BLK: 038, NE/4, ADDN: HOMESTEAD | 0.482 | ROBINSON BUILDING LLC | | $ 2,881,081 |
| R000034980 | 501 E TENNESSEE AV | BLK: 004, W.70 OF S.75 OF W/2, ADDN: ORIGINAL TOWN | 0.121 | ROBLES OSCAR | | $ 10,500 |
| R000034981 | 505 E TENNESSEE AV | BLK: 004, E.70 OF S.75 OF W/2, ADDN: ORIGINAL TOWN | 0.121 | ROBLES OSCAR | | $ 77,890 |
| R000035196 | 209 N WEATHERFORD ST | BLK: 039, LOT: 001 & 2, ADDN: ORIGINAL TOWN | 0.321 | ROCK HOUSE RESIDENTIAL PROP LTD | | $ 39,380 |
| R000035214 | 300 E ILLINOIS AV | BLK: 040, LOT: 012 W 85, ADDN: ORIGINAL TOWN | 0.098 | RODEA MARTIN T | | $ 45,790 |
| R000041052 | 803 N MAIN ST | Lot: 002, Blk: 001, Subd: ATRIUM, BLK: 001, LOT: 002, ADDN: ATRIUM | 0.149 | RODRIGUEZ ANDREA E | | $ 150,060 |
| R000032394 | 409 N LEE ST | BLK: 006, LOT: 002, ADDN: MOODY | 0.161 | RODRIGUEZ CATARINA NICOLE | | $ 236,700 |
| R000035072 | 311 N MINEOLA ST | BLK: 019, LOT: 001, ADDN: ORIGINAL TOWN | 0.161 | RODRIQUEZ FELIPE | | $ 29,910 |
| R000035073 | 309 N MINEOLA ST | BLK: 019, LOT: 002, ADDN: ORIGINAL TOWN | 0.161 | RODRIQUEZ FELIPE | | $ 191,880 |
| R000035029 | 401 N DALLAS ST | BLK: 012, S.50 OF SE/4, ADDN: ORIGINAL TOWN | 0.161 | RODRIQUEZ FELIPE EST | | $ 49,300 |
| R000025832 | 709 N BIG SPRING ST | BLK: 010, LOT: NE/4, ADDN: HOMESTEAD | 0.482 | ROSE HOLDINGS LTD | | $ 203,910 |
| R000051787 | 808 W MISSOURI AV | BLK: 015, LOT: 008, ADDN: WEST END | 0.161 | ROYS NANCY | | $ 111,180 |
| R000051892 | 908 W INDIANA AV | BLK: 031, LOTS: 007 & 8, ADDN: WEST END | 0.321 | RSVS LLC | | $ 218,800 |
| R000026046 | 600 N A ST | BLK: 034, LOT: 005 & W/2 OF LOT 6, ADDN: HOMESTEAD | 0.186 | RUBIO JONATHAN J | | $ 79,870 |
| R000035026 | 411 N DALLAS ST | BLK: 012, LOT: 001 E/2, ADDN: ORIGINAL TOWN | 0.241 | RUIZ PEDRO | | $ 21,000 |
| R000035050 | 406 N TERRELL ST | BLK: 014, LOT: 004 SOUTH PART &, ADDN: ORIGINAL TOWN, NW/CORNER LOT 3 | 0.166 | RUIZ RAFAEL E | | $ 49,230 |
| R000035051 | 410 N TERRELL ST | BLK: 014, LOT: 004 NORTH PART, ADDN: ORIGINAL TOWN | 0.132 | RUIZ RAFAEL E | | $ 66,810 |
| R000035032 | 408 N FORT WORTH ST | BLK: 012, S.50 OF N.100 OF NW/4, ADDN: ORIGINAL TOWN | 0.161 | RUTLEDGE MELYSSA | | $ 100,850 |
| R000026098 | 409 N COLORADO ST | BLK: 045, S/2 OF NE/4 LESS S.50, ADDN: HOMESTEAD | 0.08 | S B W CORPORATION | | $ 7,880 |
| R000026100 | 411 N COLORADO ST | BLK: 045, N/2 OF NE/4, ADDN: HOMESTEAD | 0.241 | S B W CORPORATION | | $ 23,750 |
| R000203137 | 509 N FORT WORTH ST | BLK: 002, LOT: 002, ADDN: OLD PUEBLO PARK, SEC 2 | 0.161 | SAENZ JESSICA MADRID | | $ 187,300 |
| R000058249 | 510 N FORT WORTH ST | BLK: 001, LOT: 012, ADDN: OLD PUEBLO PARK | 0.112 | SAENZ LEROY | | $ 186,740 |
| R000203974 | 506 N DALLAS ST | BLK: 003, LOT: 005, ADDN: OLD PUEBLO PARK SEC 3 | 0.103 | SAIZ ERNESTO | | $ 142,090 |
| R000203970 | 514 N DALLAS ST | BLK: 003, LOT: 001, ADDN: OLD PUEBLO PARK SEC 3 | 0.13 | SALCIDO FRANCISCO | | $ 230,240 |
| R000034989 | 501 N FORT WORTH ST | BLK: 06, S.50 OF SE/4, ADDN: ORIGINAL TOWN | 0.161 | SAMANIEGO ANITA V | | $ 14,000 |
| R000034988 | 503 N FORT WORTH ST | BLK: 006, N.50 OF SE/4, ADDN: ORIGINAL TOWN | 0.161 | SAMANIEGO ANITA V | | $ 60,910 |
| R000032402 | 406 N LAMESA RD | BLK: 006, LOT: 010, ADDN: MOODY | 0.161 | SANCHEZ JUAN | | $ 14,000 |
| R000032401 | 404 N LAMESA RD | BLK: 006, LOT: 009 LESS 350, ADDN: MOODY | 0.153 | SANCHEZ JUAN | | $ 50,840 |
| R000032400 | 402 N LAMESA RD | BLK: 006, LOT: 008 LESS 644, ADDN: MOODY | 0.146 | SANCHEZ JUAN J | | $ 12,710 |
| R000052056 | 710 W WASHINGTON AV | BLK: 051, LOTS: 5 THRU 7, ADDN: WEST END | 0.513 | SANCHEZ OSCAR O | | $ 203,000 |
| R000041033 | 913 N MAIN ST | BLK: 002, LOT: 005, ADDN: RICHARDSON ABILENE | 0.158 | SANCHEZ VELASCO MIGUEL A | | $ 252,560 |
| R000025946 | 603 N DALLAS ST | BLK: 023, M.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | SANDATE OSCAR MENCHACA | | $ 215,950 |
| R000035208 | 317 E TEXAS AV | BLK: 040, LOTS: 005 & 6, ADDN: ORIGINAL TOWN | 0.321 | SCHMID 5 HOLDINGS LLC | | $ 124,820 |
| R000051784 | 0 W WALL ST | BLK: 015, LOT: 003 W.20 & ALL OF, ADDN: WEST END, LOT 4 | 0.225 | SCYTHIAN LTD | | $ 71,050 |
| R000051785 | 0 W WALL ST | BLK: 015, LOTS: 005 & 6, ADDN: WEST END | 0.321 | SCYTHIAN LTD | | $ 103,780 |
| R000051783 | 801 W WALL ST | BLK: 015, LOTS: 001 & 2 & E.30 OF, ADDN: WEST END, LOT 3 | 0.418 | SCYTHIAN LTD | | $ 194,850 |
| R000035659 | 401 S MARIENFELD ST | BLK: 109, LOT: 01A, ADDN: ORIGINAL TOWN, SEC 6 | 1.408 | SHH ENTERPRISES LLC | | $ 2,047,190 |
| R000051772 | 902 W WALL ST | BLK: 013, LOT: 013, ADDN: WEST END SEC 9 | 0.153 | SHULL HAROLD | | $ 77,240 |
| R000026117 | 509 W TENNESSEE AV | BLK: 047, E.48 OF W.94 OF, ADDN: HOMESTEAD, N.100 OF NW/4 | 0.11 | SIGNAL MARIENFELD LLC | | $ 9,600 |
| R000026116 | 0 W TENNESSEE AV | BLK: 047, W.46 OF N.100 OF NW/4, ADDN: HOMESTEAD | 0.106 | SIGNAL MARIENFELD LLC | | $ 24,900 |
| R000035008 | 401 N WEATHERFORD ST | BLK: 010, LOT: 002, ADDN: ORIGINAL TOWN | 0.482 | SIGNAL WEATHERFORD LLC | | $ 139,740 |
| R000035552 | 310 S PECOS ST | BLK: 091, LOTS: 010 THRU 12 S/2, ADDN: ORIGINAL TOWN | 0.241 | SIMS LARRY | | $ 53,510 |

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000035551 | 306 S PECOS ST | BLK: 091, LOTS: 010 THRU 12 N/2, ADDN: ORIGINAL TOWN | 0.241 | SIMS LARRY | | $ 94,740 |
| R000215329 | 400 S PECOS ST | BLK: 111, LOT: 01A, ADDN: ORIGINAL TOWN, SEC 13 | 0.449 | SIMS LARRY D | | $ 218,700 |
| R000025984 | 604 N BIG SPRING ST | BLK: 029, S.50 OF M.100 OF W/2, ADDN: HOMESTEAD | 0.161 | SIR MANAGEMENT LLC | | $ 17,200 |
| R000025982 | 0 N BIG SPRING ST | BLK: 029, N.50 OF M.100 OF W/2, ADDN: HOMESTEAD | 0.161 | SIR MANAGEMENT LLC | | $ 234,490 |
| R000025968 | 608 N MAIN ST | BLK:026, S/2 OF NW/4, ADDN: HOMESTEAD | 0.241 | SIX O EIGHT N MAIN | | $ 1,078,297 |
| R000025863 | 711 N BAIRD ST | BLK: 014, N.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | SMITH RONNIE D | | $ 14,000 |
| R000025864 | 709 N BAIRD ST | BLK: 014, M.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | SMITH RONNY D | | $ 14,000 |
| R000051790 | 106 S A ST | BLK: 015, LOTS: 010 THRU 12 N.65, ADDN: WEST END | 0.224 | SOSA ONE LLC | | $ 145,280 |
| R000035351 | 103 S A ST | BLK: 060 1/2, LOTS: 002;3 & 4, ADDN: ORIGINAL TOWN | 0.218 | SOSA ONE LLC | | $ 160,550 |
| R000051895 | 204 S B ST | BLK: 031, LOT: N 97.5 OF LOT 11, ADDN: WEST END, & LOT 12 | 0.224 | SOUTH JK LLC | | $ 155,050 |
| R000035539 | 0 N MARIENFELD ST | BLK: 089, LOT: 004, ADDN: ORIGINAL TOWN | 0.161 | SOUTHWESTERN BELL TELEPHONE CO | | $ 19,690 |
| R000035538 | 0 N MARIENFELD ST | BLK: 089, LOT: 003, ADDN: ORIGINAL TOWN | 0.161 | SOUTHWESTERN BELL TELEPHONE CO | | $ 19,690 |
| R000035537 | 0 N MARIENFELD ST | BLK: 089, LOTS: 001 & 2, ADDN: ORIGINAL TOWN | 0.321 | SOUTHWESTERN BELL TELEPHONE CO | | $ 39,380 |
| R000026119 | 507 W TENNESSEE AV | BLK: 047, E.46 OF N.100 OF, ADDN: HOMESTEAD | 0.106 | SPENCER GREGORY S | | $ 215,490 |
| R000035105 | 301 E ILLINOIS AV | BLK: 022, LOTS: 007 & 8, ADDN: ORIGINAL TOWN | 0.321 | STACKING STONES LLC | | $ 143,740 |
| R000051792 | 908 W MISSOURI AV | BLK: 016, LOTS: 007 & 8 S/2, ADDN: WEST END | 0.161 | STAGG 901 LTD | | $ 50,750 |
| R000051793 | | BLK: 016, LOTS: 007 & 8 N/2 & ALL, ADDN: WEST END, OF LOTS 9 THRU 12 | 0.803 | STAGG 901 LTD | | $ 253,750 |
| R000051791 | 901 W WALL ST | BLK: 016, LOTS: 001 THRU 6, ADDN: WEST END | 0.964 | STAGG 901 LTD | | $ 6,406,495 |
| R000035375 | 201 W WALL ST | BLK: 065, LOTS: 001 & 2 & E.23.5, ADDN: ORIGINAL TOWN, OF LOT 3 | 0.219 | STAGG INVESTMENT III LTD | | $ 7,486,443 |
| R000035376 | 203 W WALL ST | BLK: 065, LOTS: 3(W1.5); 4-6 &, ADDN: ORIGINAL TOWN, LOT 7(E24.25) | 0.301 | STAGG INVESTMENT III LTD | | $ 11,988,486 |
| R000025804 | 805 N FORT WORTH ST | BLK: 007, N.50 OF S.125 OF N.250, ADDN: HOMESTEAD, OF E/2 | 0.161 | STATHAKOS NIKCOAL | | $ 93,500 |
| R000058247 | 506 N FORT WORTH ST | BLK: 001, LOT: 010, ADDN: OLD PUEBLO PARK | 0.115 | STENSON JACE | | $ 175,720 |
| R000035554 | 302 S MARIENFELD ST | BLK: 092, LOTS: 002 THRU 4, ADDN: ORIGINAL TOWN | 0.482 | STROOPE BEVERLY MAXCINE | | $ 244,920 |
| R000025955 | 606 N WEATHERFORD ST | BLK: 024, NW/4, ADDN: HOMESTEAD | 0.482 | SWEET COMMERCIAL PROPERTIES LLC | | $ 565,900 |
| R000025975 | 600 N LORAINE ST | BLK: 027, S.200 OF W/2, ADDN: HOMESTEAD | 0.643 | T J J C K LLC | | $ 410,490 |
| R000025855 | 700 N BIG SPRING ST | BLK: 011, S.90 OF SW/4, ADDN: HOMESTEAD | 0.289 | TAING HANG KHEANG | | $ 135,940 |
| R000035155 | 500 W TEXAS AV | BLKS: 032 & 33, ALL, ADDN: ORIGINAL TOWN | 4.684 | TALL CITY TOWERS LLC | | $ 95,808,384 |
| R000025935 | 609 N TERRELL ST | BLK: 022, LOT: 002, ADDN: HOMESTEAD, (AKA S.50 N.100 OF E/2) | 0.161 | TARANGO SAMUEL EST | | $ 46,870 |
| R000025827 | 804 N MAIN ST | BLK: 009, LOT: 009, ADDN: HOMESTEAD | 0.161 | TEAL JUDY A | | $ 151,290 |
| R000035339 | 601 W TEXAS AV | BLK: 059, LOTS: 001 & 2 E.90, ADDN: ORIGINAL TOWN | 0.207 | TEJAS AVENUE LLC | | $ 416,370 |
| R000035015 | 411 N FORT WORTH ST | BLK: 011, N.95 OF NE/4 LESS W 50, ADDN: ORIGINAL TOWN | 0.196 | TENNON HATTIE | | $ 72,900 |
| R000035016 | 306 E TENNESSEE AV | BLK: 011, W.50 OF N.95 OF NE/4, ADDN: ORIGINAL TOWN | 0.109 | TENNON HATTIE | | $ 81,590 |
| R000035108 | 308 N WEATHERFORD ST | BLK: 022, LOT: 011 S.25, ADDN: ORIGINAL TOWN | 0.08 | TEXAS ARMS OF LOVE INC | E | $ - |
| R000035106 | 304 N WEATHERFORD ST | BLK: 022, LOT: 009, ADDN: ORIGINAL TOWN | 0.161 | TEXAS ARMS OF LOVE INC | E | $ - |
| R000035109 | 310 N WEATHERFORD ST | BLK: 022, LOTS: 11(N25) & 12(S5), ADDN: ORIGINAL TOWN | 0.096 | TEXAS ARMS OF LOVE INC | E | $ - |
| R000035107 | 306 N WEATHERFORD ST | BLK: 022, LOT: 010, ADDN: ORIGINAL TOWN | 0.161 | TEXAS ARMS OF LOVE INC | E | $ - |
| R000035217 | 204 N FORT WORTH ST | BLK: 041, LOTS: 009 THRU 12, ADDN: ORIGINAL TOWN | 0.643 | TEXAS ARMS OF LOVE INC | | $ 35,000 |
| R000035070 | 711 E FRONT ST | BLK: 018, LOTS: 001 THRU 4, ADDN: ORIGINAL TOWN | 0.62 | TEXAS BROTHERS LLC | | $ 156,190 |
| R000035071 | 703 E FRONT ST | BLK: 018, LOTS: 005 THRU 10, ADDN: ORIGINAL TOWN | 0.912 | TEXAS BROTHERS LLC | | $ 637,670 |
| R000035149 | 0 N CARRIZO ST | BLK: 031, LOT: 002, ADDN: ORIGINAL TOWN | 0.161 | TEXAS TEN LTD | | $ 14,000 |
| R000035148 | 211 N CARRIZO ST | BLK: 031, LOT: 001, ADDN: ORIGINAL TOWN | 0.161 | TEXAS TEN LTD | | $ 14,000 |
| R000051904 | 808 W INDIANA AV | BLK: 032, LOT: 5 & 6 S.160.1 OF W/2, ADDN: WEST END | 0.515 | TEXLAND 1031 HOLDINGS LLC | | $ 634,880 |
| R000035014 | 412 N BAIRD ST | BLK: 010, N.50 OF NW/4, ADDN: ORIGINAL TOWN | 0.161 | THB BRENTWAY LLC | | $ 36,750 |
| R000035546 | 300 S PECOS ST | BLK: 091, LOTS: 001 THRU 3, ADDN: ORIGINAL TOWN | 0.482 | THB BRENTWAY LLC | | $ 77,830 |
| R000035283 | 108 N WEATHERFORD ST | BLK: 051, LOTS: 016 & 17, ADDN: ORIGINAL TOWN | 0.161 | THE OLD WAREHOUSE LLC | | $ 57,730 |
| R000035028 | 403 N DALLAS ST | BLK: 012, N.100 OF SE/4, ADDN: ORIGINAL TOWN | 0.321 | THRIFTY STORAGE INC | | $ 116,090 |
| R000225624 | 0 E ILLINOIS AV | BLK: 023, LOT: 013, ADDN: ORIGINAL TOWN SEC 24 | 0.97 | THRIVING UNITED INC | | $ 479,040 |
| R000035111 | 201 E ILLINOIS AV | BLK: 023, LOTS: 7-12, ADDN: ORIGINAL TOWN | 1.01 | THRIVING UNITED INC | | $ 1,692,380 |
| R000035182 | 219 N MAIN ST | BLK: 037, LOT: 002 N/2, ADDN: ORIGINAL TOWN | 0.08 | THUNDERBOLT PETROLEUM COMPANY LLC | | $ 118,140 |
| R000058245 | 502 N FORT WORTH ST | BLK: 001, LOT: 008, ADDN: OLD PUEBLO PARK | 0.115 | TIJERINA ROSA LINDA | | $ 177,630 |

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000035118 | 218 W ILLINOIS AV | BLK: 026, LOT: 007 & S/2 OF LOT 8, ADDN: ORIGINAL TOWN | 0.241 | TIN KEY 218 LLC | | $ 393,560 |
| R000035191 | 206 N MAIN ST | BLK: 038, LOT: 008 N/2 & S.9 OF 9, ADDN: ORIGINAL TOWN | 0.109 | TITLE TECHNOLOGIES INC | | $ 279,640 |
| R000032393 | 411 N LEE ST | BLK: 006, LOT: 001, ADDN: MOODY | 0.161 | TORRES GILBERTO ANTONIO | | $ 242,520 |
| R000034974 | 500 N TERRELL ST | BLK: 003, S.75 OF SW/4, ADDN: ORIGINAL TOWN | 0.241 | TOVAR EMILIO & | | $ 81,110 |
| R000035553 | 300 S MARIENFELD ST | BLK: 092, LOT: 001, ADDN: ORIGINAL TOWN | 0.161 | TRINITY RHEMA INTERNATIONAL CHURCH | | $ 36,750 |
| R000035157 | 400 W TEXAS AV | BLK: 034, LOTS: 004 & N/2 OF 005, ADDN: ORIGINAL TOWN | 0.241 | TUNA INVESTMENT LLC | | $ 279,243 |
| R000203779 | 400 W TEXAS AV | BLK: 034, LTS:005(S/2) & ALL OF 006, ADDN: ORIGINAL TOWN | 0.241 | TUNA INVESTMENT LLC | | $ 7,507,459 |
| R000034990 | 500 N WEATHERFORD ST | BLK 006, .50 OF SW/4, ADDN: ORIGINAL TOWN | 0.161 | TYLER REAL ESTATE LLC | | $ 14,000 |
| R000026080 | 501 N COLORADO ST | BLK: 040, S.100 OF SE/4, ADDN: HOMESTEAD | 0.321 | TYNER REAL ESTATE LLC | | $ 64,450 |
| R000035289 | 0 N WEATHERFORD ST | BLK: 052, LOT: 008, ADDN: ORIGINAL TOWN | 0.08 | UNITED STATES OF | E | $ - |
| R000035287 | 0 N WEATHERFORD ST | BLK: 052, LOT: 004, ADDN: ORIGINAL TOWN | 0.08 | UNITED STATES OF | E | $ - |
| R000035286 | 0 N WEATHERFORD ST | BLK: 052, LOT: 003, ADDN: ORIGINAL TOWN | 0.08 | UNITED STATES OF | E | $ - |
| R000035292 | 0 N BAIRD ST | BLK: 052, LOTS: 017 & 18, ADDN: ORIGINAL TOWN | 0.161 | UNITED STATES OF | E | $ - |
| R000035285 | 0 N WEATHERFORD ST | BLK: 052, LOTS: 001 & 2, ADDN: ORIGINAL TOWN | 0.161 | UNITED STATES OF | E | $ - |
| R000035288 | 0 N WEATHERFORD ST | BLK: 052, LOTS: 005 THRU 7, ADDN: ORIGINAL TOWN | 0.241 | UNITED STATES OF | E | $ - |
| R000035291 | 0 N BAIRD ST | BLK: 052, LOTS: 013 THRU 16, ADDN: ORIGINAL TOWN | 0.321 | UNITED STATES OF | E | $ - |
| R000035290 | 0 N WEATHERFORD ST | BLK: 052, LOTS: 009 THRU 12, ADDN: ORIGINAL TOWN | 0.321 | UNITED STATES OF | E | $ - |
| R000035293 | 0 N BAIRD ST | BLK: 052, LOTS: 019 THRU 24, ADDN: ORIGINAL TOWN | 0.482 | UNITED STATES OF | E | $ - |
| R000035386 | 100 E WALL ST | BLKS: 67;68;, 69 & 84, ADDN: ORIGINAL TOWN | 5.125 | UNITED STATES OF | E | $ - |
| R000025948 | 607 N DALLAS ST | BLK: 023, S.50 OF NE/4, ADDN: HOMESTEAD | 0.161 | URBINA JOSUE & | | $ 188,140 |
| R000035037 | 403 N TERRELL ST | BLK: 013, M.50 OF SE/4, ADDN: ORIGINAL TOWN | 0.161 | VALLE ARTHURO | | $ 30,280 |
| R000035036 | 401 N TERRELL ST | BLK: 013, S.50 OF SE/4, ADDN: ORIGINAL TOWN | 0.161 | VALLE ARTURO | | $ 24,140 |
| R000035054 | 405 N MARSHALL ST | BLK: 015, N.50 SE/4 (AKA 2A), ADDN: ORIGINAL TOWN, & S.50 NE/4 (AKA 1C) | 0.321 | VALLIN OSCAR | | $ 28,000 |
| R000035053 | 409 N MARSHALL ST | BLK: 015, M.50 NE/4, ADDN: ORIGINAL TOWN, (AKA LOT 1B) | 0.161 | VALLIN OSCAR M | | $ 14,000 |
| R000035052 | 411 N MARSHALL ST | BLK: 015, N.50 NE/4, ADDN: ORIGINAL TOWN, (AKA LOT 1A) | 0.161 | VALLIN OSCAR M | | $ 14,000 |
| R000035129 | 312 N BIG SPRING ST | BLK: 027, LOTS: 019 THRU 21, ADDN: ORIGINAL TOWN | 0.241 | VANDERGRIFF BUILDING MANAGEMENT LLC | | $ 326,020 |
| R000034964 | 509 N MINEOLA ST | BLK: 003, LOT: 001, ADDN: ORIGINAL TOWN | 0.161 | VARELA JUAN V & | | $ 79,910 |
| R000035042 | 406 N DALLAS ST | BLK: 013, S.50 OF NW/4, ADDN: ORIGINAL TOWN | 0.161 | VARELA MARCO | | $ 60,180 |
| R000025882 | 710 N WEATHERFORD ST | BLK: 016, N.100 OF W/2, ADDN: HOMESTEAD | 0.321 | VASQUEZ MARIO | | $ 238,910 |
| R000025941 | 604 N DALLAS ST | BLK: 022, LOT: 008, ADDN: HOMESTEAD | 0.161 | VEGA RICARDO | | $ 186,580 |
| R000035084 | 305 N TERRELL ST | BLK: 020, LOT: 004, ADDN: ORIGINAL TOWN | 0.161 | VELA JOE | | $ 15,730 |
| R000035218 | 508 E ILLINOIS AV | BLK: 042, LOT: 001, ADDN: ORIGINAL TOWN | 0.161 | VELOZ GEORGE MANAGEMENT LP | | $ 134,700 |
| R000034977 | 507 N TERRELL ST | BLK: 004, LOT: 001 S.50, ADDN: ORIGINAL TOWN | 0.161 | VERASTEGUI FRANCISCO JAVIER | | $ 14,000 |
| R000041047 | 922 N LORAINE ST | BLK: 002, LOT: 021, ADDN: RICHARDSON ABILENE | 0.158 | VILLELA ELVA ERICKA OLIVAS | | $ 13,800 |
| R000041048 | 924 N LORAINE ST | BLK: 002, LOT: 022, ADDN: RICHARDSON ABILENE | 0.158 | VILLELA ELVA ERICKA OLIVAS | | $ 63,080 |
| R000025820 | 807 N BAIRD ST | BLK: 009, LOT: 002 S/2 & ALL OF 3, ADDN: HOMESTEAD | 0.241 | WALKER THEDIS | | $ 50,500 |
| R000035349 | 703 W WALL ST | BLK: 060 1/2, LOT: 001 & N.30 OF LOT, ADDN: ORIGINAL TOWN, 2 & 10X80 OF CARRIZO ST | 0.127 | WALL ST COCINA LLC | | $ 121,150 |
| R000035356 | 606 W MISSOURI AV | BLK: 061, LOTS: 007 & 8, ADDN: ORIGINAL TOWN | 0.321 | WALL ST JOINT VENTURE | | $ 333,470 |
| R000035385 | 117 W WALL ST | BLK: 066, LOTS: 013 THRU 24, ADDN: ORIGINAL TOWN | 0.964 | WALL STREET | | $ 13,760,378 |
| R000035359 | 106 S CARRIZO ST | BLK: 061, LOT: 009, ADDN: ORIGINAL TOWN | 0.161 | WALL STREET JOINT | | $ 28,620 |
| R000226416 | 621 W WALL ST | BLK: 061, LOTS: 013, ADDN: ORIGINAL TOWN | 0.345 | WALL STREET JOINT | | $ 204,450 |
| R000026047 | 712 W MICHIGAN AV | BLK: 034, LOT: 006 E/2 & ALL OF 7, ADDN: HOMESTEAD | 0.382 | WALTON TRENT A | | $ 650,850 |
| R000026133 | 0 W TENNESSEE AV | BLK: 049, (40 X 65) ABANDONED ST, ADDN: HOMESTEAD | 0.06 | WE INCORPORATED | E | $ - |
| R000026123 | 0 N CARRIZO ST | BLK: 049, 40 X 85 ADJACENT TO SW/4, ADDN: HOMESTEAD | 0.078 | WE INCORPORATED | E | $ - |
| R000026131 | 404 SAN ANGELO ST | BLK: 049, N.65 OF W/2 OF SW/4, ADDN: HOMESTEAD | 0.104 | WE INCORPORATED | E | $ - |
| R000026135 | 712 W OHIO AV | BLK: 049, LOT: S/2 OF BLK 49 1/2, ADDN: HOMESTEAD, & 40 X150 ABANDONED ST | 0.237 | WE INCORPORATED | E | $ - |
| R000026129 | 706 W OHIO AV | BLK: 049, E.70 OF SW/4, ADDN: HOMESTEAD | 0.241 | WE INCORPORATED | E | $ - |
| R000041041 | 812 N LORAINE ST | BLK: 002, LOT: 015, ADDN: RICHARDSON ABILENE | 0.158 | WHITE MARIA | | $ 54,430 |
| R000025856 | 711 N LORAINE ST | BLK: 012, N.91 OF NE/4, ADDN: HOMESTEAD | 0.292 | WHITE STAR ENERGY INC | | $ 25,480 |
| R000035372 | 415 W WALL ST | BLK: 063, LOTS: 010;11&W.105 OF 12, ADDN: ORIGINAL TOWN | 0.402 | WILCO BUILDING PARTNER | | $ 19,187,708 |

| Property ID | Street Address | Legal Description | Acres | Owner Name | Exemption | Taxable Value |
|---|---|---|---|---|---|---|
| R000109953 | 710 N BAIRD ST | BLK: 015, LOT: 012, ADDN: HOMESTEAD SEC 3 | 0.172 | WILEY JOE W | | $ 155,360 |
| R000058241 | 505 N DALLAS ST | BLK: 001, LOT: 004, ADDN: OLD PUEBLO PARK | 0.115 | WILLIAMS DEBRA B | | $ 192,550 |
| R000026101 | 412 N BIG SPRING ST | BLK: 045, N.100 OF NW/4, ADDN: HOMESTEAD | 0.321 | WRANGLER MITX 130311 PORTFOLIO OWNER LLC | | $ 155,060 |
| R000214218 | 610 N BIG SPRING ST | BLK:029, LT 05A, ADDN: HOMESTEAD, SEC 10 | 0.349 | WSE REALTY LLC | | $ 791,780 |
| R000219719 | 706 N COLORADO ST | BLK: 012, LOT: 01A, ADDN: HOMESTEAD SEC 17 | 0.722 | WSE REALTY LLC | | $ 1,977,920 |
| R000035195 | 216 N MAIN ST | BLK: 038, LOT: 012 S/2, ADDN: ORIGINAL TOWN | 0.08 | WSJV LLC | | $ 165,620 |
| R000017990 | 907 WHITAKER ST | BLK: 006, LOT: 013, ADDN: ESTES | 0.143 | Y M C A | E | $ - |
| R000017991 | 909 WHITAKER ST | BLK: 006, LOT: 014, ADDN: ESTES | 0.143 | Y M C A | E | $ - |
| R000017992 | 0 WHITAKER ST | BLK: 006, LOT: 015, ADDN: ESTES | 0.143 | Y M C A | E | $ - |
| R000017993 | 1005 WHITAKER ST | BLK: 006, LOT: 016, ADDN: ESTES | 0.143 | Y M C A | E | $ - |
| R000017994 | 1007 WHITAKER ST | BLK: 006, LOT: 017, ADDN: ESTES | 0.143 | Y M C A | E | $ - |
| R000017995 | 1009 WHITAKER ST | BLK: 006, LOT: 018, ADDN: ESTES | 0.143 | Y M C A | E | $ - |
| R000017948 | 802 WHITAKER ST | BLK: 001, LOT: 003 4 & 5 W 50, ADDN: ESTES | 0.172 | Y M C A | E | $ - |
| R000226306 | 800 N BIG SPRING ST | BLK: 019, LOT: 002A, ADDN: ELMWOOD SEC 3 | 7.47 | Y M C A | E | $ - |
| R000035377 | 211 W WALL ST | BLK: 065, LOT: 008, +9 IN ALL OF L OF 007 & 009, ADDN: ORIGINAL TOWN | 0.079 | YEI ACQUISITION LLC | | $ 176,560 |
| R000041051 | 805 N MAIN ST | Lot: 001, Blk: 001, Subd: ATRIUM, BLK: 001, LOT: 001, ADDN: ATRIUM | 0.149 | YHARTE BELINDA | | $ 152,120 |
| R000025951 | 605 N DALLAS ST | BLK: 023, N.50 OF SE/4, ADDN: HOMESTEAD | 0.161 | YOUNG ANDRE | | $ 183,950 |
| R000017952 | 807 N LORAINE ST | BLK: 001, LOT: 004 E.115, ADDN: ESTES | 0.132 | YOUNG MENS CHRISTIAN ASSO | E | $ - |
| R000017953 | 0 LORAINE ST | BLK: 001, LOT: 005 E.115, ADDN: ESTES | 0.132 | YOUNG MENS CHRISTIAN ASSO | E | $ - |
| R000017996 | 1011 WHITAKER ST | BLK: 006, LOT: 019, ADDN: ESTES | 0.143 | YOUNG MENS CHRISTIAN ASSO | E | $ - |
| R000017997 | 1013 WHITAKER ST | BLK: 006, LOT: 020 & STRIP 15, ADDN: ESTES, WIDE N OF LOT 20 | 0.187 | YOUNG MENS CHRISTIAN ASSO | E | $ - |
| R000017955 | 808 WHITAKER ST | BLK: 001, LOT: 006 & 7 W/2, ADDN: ESTES | 0.189 | YOUNG MENS CHRISTIAN ASSO | E | $ - |
| R000017971 | 1017 WHITAKER ST | BLK: 005, LOT: 1A, ADDN: SPW ESTES, SEC 2 | 0.445 | YOUNG MENS CHRISTIAN ASSO | E | $ - |
| R000017954 | 811 N LORAINE ST | BLK: 001, LOT: 006 & 7 E/2, ADDN: ESTES | 0.189 | YOUNG MENS CHRISTION ASSO | E | $ - |
| R000035081 | 311 N TERRELL ST | BLK: 020, LOT: 001, ADDN: ORIGINAL TOWN | 0.161 | ZARATE ERBY | | $ 98,560 |
| R000025926 | 602 N TERRELL ST | BLK: 021,M.50 OF SW/4, ADDN: HOMESTEAD | 0.161 | ZARATE SANDY ETAL | | $ 45,220 |
| R000041053 | 801 N MAIN ST | Lot: 003, Blk: 001, Subd: ATRIUM, BLK: 001, LOT: 003, ADDN: ATRIUM | 0.178 | ZUBIA LINDA HINOJOS | | $ 182,620 |
| R000025823 | 800 N MAIN ST | BLK: 009, LOT: 007, ADDN: HOMESTEAD | 0.161 | ZUBIA RICARDO | | $ 155,190 |

# City Council Meeting

**Item Number:** 31

**Meeting Date:** October 24, 2023, November 14, 2023

**To:** City Council / City Manager

**From:** Landon Ochoa, Senior Planner

**Subject:** AN ORDINANCE VACATING AND ABANDONING A 0.138-ACRE PORTION OF ALLEY RIGHT-OF-WAY, LOCATED WITHIN BLOCK 127, SOUTHERN ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED SOUTH OF EAST KENTUCKY AVENUE, APPROXIMATELY 100 FEET WEST OF SOUTH LAMESA ROAD); ADOPTING THE APPRAISAL BY THE ASSISTANT CITY MANAGER OF $12,000.00; RETAINING A NONEXCLUSIVE UTILITY EASEMENT; AND ORDERING RECORDATION BY THE CITY SECRETARY (DISTRICT 2) (DEVELOPMENT SERVICES)

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**Purpose:**

Maria Luisa Gardea and Guadelupe Amparan are requesting to vacate a 0.138-acre alley, located within Block 127, Southern Addition, City and County of Midland, Texas, for the future development of a retail store.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

The 2023 appraised value of the right-of-way is $2.00 per square foot, for a total value of $12,000.

**Discussion:**

The approximated area that will be vacated is 6,000 square feet (0.138-acres). The owner is requesting this vacation to obtain more land for the development of a retail store.

This request has been circulated and reviewed by all pertinent City departments and

franchise utility companies. Their comments, conditions, and requests are as follows:

**Code Compliance: (Approved)**

No oil and gas issues.

**Building Code: (Approved)**

No objections.

**Engineering: (Approved)**

No objections to vacation. Applicant shall be responsible for relocating any utilities, if existing, or providing easements as needed.

**Fire: (Approved)**

No comments

**Transportation: (Approved)**

No objections to vacation. Applicant shall be responsible for relocating any utilities, if existing, or providing easements as needed.

**GIS: (Approved)**

No comments.

**AT&T: (Approved)**

AT&T has stated that they have utilities in the area but are fine with the request as long as the utility and access easement is maintained.

**Atmos: (Approved)**

Atmos Energy currently has facilities located within the above-described alley Right of Way west. of S. Lamesa between E. Kentucky & E. Washington. We currently have a gas main that crosses the proposed vacate area. Atmos would have no objection to this vacation if a utility easement is maintained within the existing alley.

**Astound: (Approved)**

Astound has utilities in the alley and is fine with the request as long as the utility easement is maintained and the developer pays for the relocation of utilities.

**Oncor: (Approved)**

Oncor has facilities on the east side of the alley, which will be in the middle of the driveway.

Oncor can relocate these facilities or bury them, this will be at the cost of the developer. Oncor can work with the developer to vacate these facilities.

**Altice USA: (Approved)**

We do have aerial fiber & coax on those poles. If we relocate to the new proposed poles, the builder is responsible for all costs remove & relocate our plant.

**Planning:**

Pertinent City departments and franchise utility companies have reviewed this vacation request and have approved the request.

Therefore, staff recommends approval of this vacation subject to conditions A through C.

**Conditions:**

A. **That the value of the property shall be $12,000.**

B. **That an accessible nonexclusive utility easement is retained.**

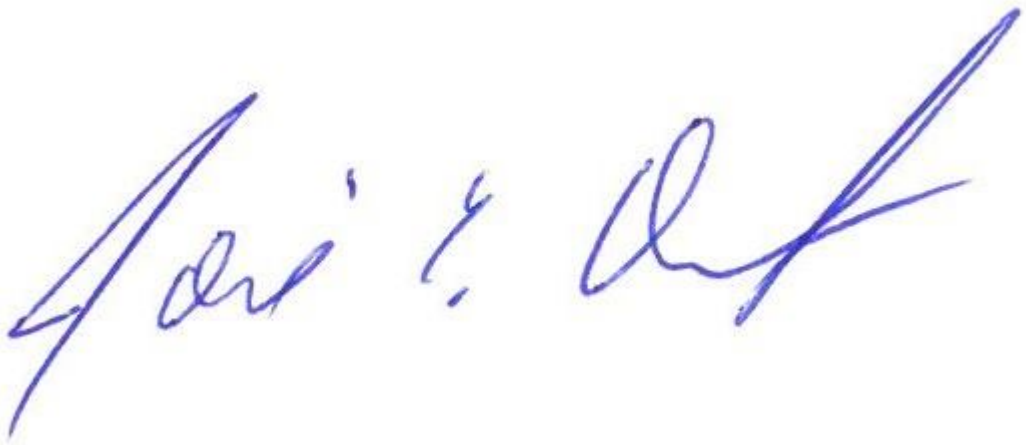
C. **That a replat of the subject property is approved by the City of Midland and filed and recorded with the County Clerk of Midland County.**

**Letters of Objection:**

As of October 13, 2023, staff has not received any letters of objection to this request.

**Attachments:**

Metes & Bounds (Exhibit A)
Vacation Survey (Exhibit B)
Application
Maps
Responses from Franchise Utility Companies



City Manager's Office

**ORDINANCE NO. _____**

**AN ORDINANCE VACATING AND ABANDONING A 0.138-ACRE PORTION OF ALLEY RIGHT-OF-WAY, LOCATED WITHIN BLOCK 127, SOUTHERN ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED SOUTH OF EAST KENTUCKY AVENUE, APPROXIMATELY 100 FEET WEST OF SOUTH LAMESA ROAD); ADOPTING THE APPRAISAL BY THE ASSISTANT CITY MANAGER OF $12,000.00; RETAINING A NONEXCLUSIVE UTILITY EASEMENT; AND ORDERING RECORDATION BY THE CITY SECRETARY**

**WHEREAS**, it has been determined by the Midland City Council that a 0.138-acre portion of alley right-of-way, located within Block 127, Southern Addition, City and County of Midland, Texas, as described in Exhibit "A" attached hereto and made a part hereof for all legal purposes (the "Property"), is no longer needed for public use; and

**WHEREAS,** Section 272.001 of the Texas Local Government Code provides that a political subdivision may not convey, sell, or exchange its interest in land without observing notice and bid requirements, unless the conveyance is to one or more abutting property owners; and

**WHEREAS,** an application for vacating the Property has been received by the City from the abutting property owner; and

**WHEREAS,** the Assistant City Manager has appraised the value of the City's property interest in the Property at $12,000.00, as shown in Exhibit "B" attached hereto and incorporated herein by reference; and

**WHEREAS**, the Council finds it to be in the public interest to abandon and vacate the Property;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the Property is hereby vacated and abandoned for all public purposes. Provided, however, that the City is hereby abandoning only the public interest in the Property, and this ordinance in no way affects any private easement or access easement

which abutting property owners may have in the Property.

**SECTION TWO.** That this ordinance shall not be effective until:

A. the City of Midland has received from the abutting property owner(s) the sum of $12,000.00;

B. a replat of the Property is approved by the City of Midland and filed and recorded with the County Clerk of Midland County, Texas; and

C. a vehicular access easement has been granted by the owner(s) of Lots 1 through 6, Block 127, Southern Addition, City and County of Midland, Texas, to the owner(s) of Lots 7 through 12, Southern Addition, City and County of Midland, Texas. Said easement shall be reflected on the replat of the Property required by Subsection B above.

**SECTION THREE.** That the City herein retains an accessible nonexclusive utility easement across, through, over, under, on and along the Property until all entities that were using the Property for utility purposes as of the date of approval of this ordinance have abandoned their uses of the Property.

**SECTION FOUR.** That upon the City's receipt of the sum set forth in Section Two hereof, the City Secretary is hereby authorized and directed to file a certified copy of this ordinance with the County Clerk of Midland County, Texas, for purposes of recording in the Official Records of Midland County, Texas.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2023; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2023, at a regular

meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Cristina Burns, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

# EXHIBIT "A"

Legal Description of the Alley in Block 127,
**SOUTHERN ADDITION,**
as recorded in Volume 2, Page 2, Deed Records of Midland County,
to the City of Midland, Midland County, Texas

Boundary being further described by metes and bounds as follows:

BEGININNG at (N= 10,693,338.79' and E= 1,760,076.14') a 1/2" iron rod with a plastic cap marked "PLS 1974" set in the South boundary of E. Kentucky Avenue at the Northwest corner of Lot 1, said Block 127, and the Northeast corner of this tract, from whence a 1/2" iron rod set erroneously by others bears N08°35'W, a distance of 1.2 feet;

THENCE S00°10'05"E with the West line of Lots 1 through 3, at 150 feet pass a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the common West corner of Lots 3 and 4 said Block 127 from whence a 1/2" iron rod erroneously set by others bears N01°06'E a distance of 1.1 feet, continuing with the West line of Lots 4 through 6, a total distance of 300.00 feet to a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the Southeast corner of this tract and the Southwest corner of said Lot 6, from whence a 1/2" iron rod set erroneously by others bears N00°32'W a distance of 1.1', also a 1/2" iron rod found at the Southeast corner of said Lot 6 bears N89°34'19"E, a distance of 140.00 feet:

THENCE S89°34'19"W with the North line of E. Washington Avenue, a distance of 20.00 feet to a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the Southeast corner of Lot 7, said Block, at Southwest corner of this tract from whence a 1/2" iron rod found at or near the Southeast corner of Lot 6, Block 128, bears S89°34'19"W, a distance of 219.71 feet:

THENCE N00°10'05"W with the East line of Lots 6 through 12, said Block 127, a distance of 300.00 feet to a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the Northeast corner of Lot 12, said Block and the Northwest corner of this tract:

THENCE N89°34'19"E along the South boundary line of E. Kentucky Avenue, a distance of 20.00 feet to the Point of Beginning, containing an area of 6000 square feet, or 0.138 acres of land.

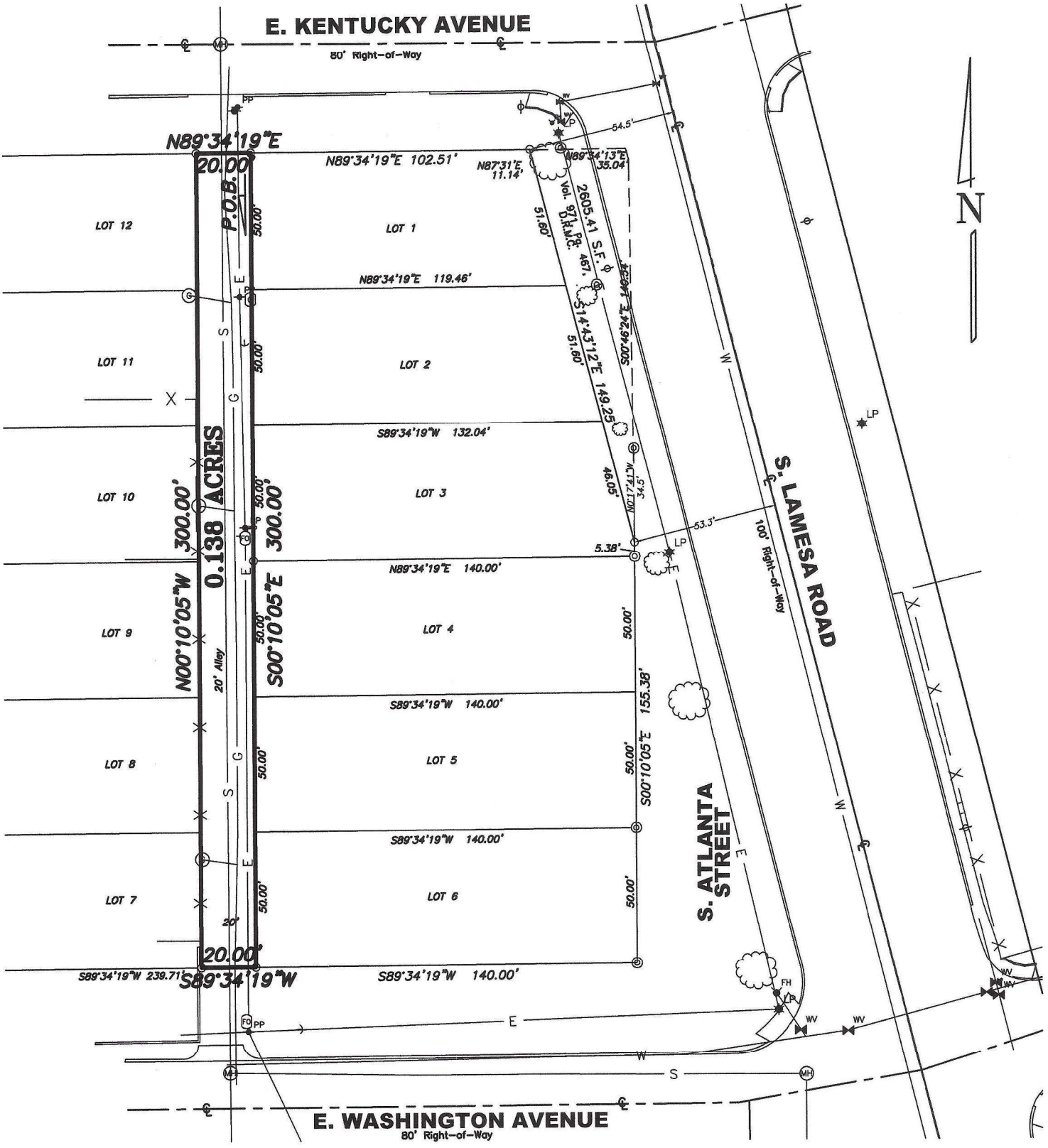
Bearings, distances, and coordinates are relative to the Texas State Plane Coordinate System, NAD 1983/CORS, Central Zone, in U.S. Survey Feet.

I, J. Stan Piper, Registered Professional Land Surveyor, do hereby certify that this plat and legal description is based on an actual survey made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief as surveyed on the ground on August 2, 2023.

J. Stan Piper August 2, 2023
Registered Professional Land Surveyor #1974

STATE OF TEXAS REGISTERED J. STAN PIPER 1974 PROFESSIONAL LAND SURVEYOR


PIPER SURVEYING Inc. Firm No. 10155200; Box 60432; Midland, Texas 79711; 432.550.7810




○ = Set 1/2" Iron Rod with Plastic Cap marked "PLS 1974" ◎ = Found 1/2" Iron Rod Unless Noted Otherwise

Drawing File: BerryEngr-ALTASouthernAddnFD; Crd File: Southern83c88; Drawn by: Gene M. Rodriguez; Scale: 1"=50'; Date: 8/2/23

# BOUNDARY SURVEY OF THE ALLEY IN BLOCK 127, SOUTHERN ADDITION, AS RECORDED IN VOLUME 2, PAGE 2, DEED RECORDS OF MIDLAND COUNTY, TO THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

Prepared for:
Berry Engineering
63 Broad St. NW
Cleveland, TN 37311

Sheet 2 of 2 – See Sheet 1 of 2 for Certificate

November 14, 2023



Firm No. 10155200
PIPER SURVEYING P.O. BOX 60432; MIDLAND, TEXAS 79711; 432.550.7810

MIDLAND
Feel the Energy!

Office of the City Manager

October 16, 2023

Midland City Council
City of Midland, Texas

**RE: Request for vacation of a 0.138-acre portion of alley right-of-way, located within Block 127, Southern Addition, City and County of Midland, Texas**

Dear Members of the City Council:

The above-referenced property has been appraised in accordance with Chapter 272 of the Texas Local Government Code. The fair market value of the property is $12,000.00. Upon the City's receipt of this sum from the adjoining property owner(s), the ordinance vacating and abandoning the City's interest in the property may be recorded in the Midland County Clerk's office.

Very truly yours,

Jose Ortiz
Assistant City Manager



300 N. Loraine, Midland TX 79701 • 432-685-7202 • Fax 432 686 1600

MIDLAND
Planning Division

**Vacate Right-of-Way/Public Utility Easement/Land/Street Application**

Project Number: _____

Case Number: _____

| **Applicant** *(if acting as Agent, see affidavit on page 2)* Printed Name: Guadalupe Amparan | | Phone ( ) Email | |
|---|---|---|---|
| Address 1423 E Jax Ave | City Midland | State TX | Zip 79707 |

**Application is hereby made to the City Council to vacate the following:**

- ■ Right-of-Way
- ☐ Public Utility Easement
- ☐ Land
- ☐ Street

**Description of Address:** 406-410 S Lamesa Rd

**Reason for Request:** Requesting abandonment of 20' alley between E Kentucky Ave and E Washington Ave for development of a proposed Dollar Tree retail store. Alley to become access & utility easement to maintain public functions for connectivity and utility access.

**Reasons, in applicant's opinion, why the requested vacation will not adversely affect the public welfare or will contribute to it in a positive way:** By abandoning the alley and converting it into an access and utility easement; it will remain functional for public uses of connectivity and utility access while allowing development of the proposed retail store project.

**Submittal and Fees**

**Items to be submitted with this application form:**

- Application Fee – Payable to the 'City of Midland'
- Sealed metes and bounds description of the property to be vacated (included on the map) and total square feet of vacation. Include ownership, legal and deed information for adjacent property owners
- Digital Copies of Survey (PDF/JPEG)

**Utility Company Approval**

Clearance is needed from the following utility companies:

- City of Midland
- Atmos Energy
- Oncor Electric
- AT&T
- Suddenlink Cable TV Co.
- Grande Communications

The City will route the request to these companies, but it is the applicant's responsibility to ensure clearance has been obtained to resolve any issues that may arise.

## Policies

1. If the vacation request involves only a portion of a section right-of-way, such that approval would not affect the public's ability to travel along said right-of-way, then the request will be scheduled for consideration by the City Council. No public hearing will be needed.

2. If the vacation request involves an entire section of right-of-way, such that approval would cause the public to lose all rights to use it, then the following procedures apply:

   a. Nearby land owners who have a reasonable expectation to use said right-of-way, as determined by the Transportation Division, must first agree to the proposed vacation. It is the applicant's responsibility to obtain a letter of concurrence signed by the affected landowners.

   b. If all letters are received indicating that the affected landowners agree to the request, then a public hearing before the City Council will be scheduled. The Transportation Division will mail public notice of the hearing to landowners within 400 feet of the affected right-of-way.

   c. If a request is approved, the right-of-way shall be divided into two equal parts, with each half becoming the property of the respective abutting owner. If the applicant desires to own the entire width, he or she must negotiate with the opposite landowner.

## Signatures

| | | |
|---|---|---|
| Applicant (signature): | | Date: |
| **Affected Property Owners:** | | |
| Signature: Lorenza Garcia | Print: Lorenza Garcia | Date: |
| Signature: | Print: Maria Hernandez | Date |
| Signature: Maria Gardea | Print: Maria ~~Amparan~~ Gardea | Date 8/18/23 |
| Signature: | Print: | Date |

*The Vacation of right-of-way/public utility easement/land/street shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.*

## FOR OFFICE USE ONLY

☐ 1 FOLDED Copy of Survey ☐ Survey in Digital Format (PDF/JPEG)

☐ Application Fee

Check #_____

| | |
|---|---|
| Received By: | Date: |

****Application will not be considered for scheduling until reviewed by planning.**

MIDLAND
Planning Division

**Vacate Right-of-Way/Public Utility Easement/Land/Street Application**

Project Number: _____

Case Number: _____

| **Applicant** *(if acting as Agent, see affidavit on page 2)* Printed Name: Maria Luisa ~~Amparan~~ Gardea | | Phone (432) 813-3042 Email | |
|---|---|---|---|
| Address: 403 Waverly Dr | City: Midland | State: TX | Zip: 79703 |

**Application is hereby made to the City Council to vacate the following:**

- ■ Right-of-Way
- ☐ Public Utility Easement
- ☐ Land
- ☐ Street

**Description of Address:** 400-404 S Lamesa Rd

**Reason for Request:** Requesting abandonment of 20' alley between E Kentucky Ave and E Washington Ave for development of a proposed Dollar Tree retail store. Alley to become access & utility easement to maintain public functions for connectivity and utility access.

**Reasons, in applicant's opinion, why the requested vacation will not adversely affect the public welfare or will contribute to it in a positive way:** By abandoning the alley and converting it into an access and utility easement; it will remain functional for public uses of connectivity and utility access while allowing development of the proposed retail store project.

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- AT&T
- Atmos Energy
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2. If the vacation request involves an entire section of right-of-way, such that approval would cause the public to lose all rights to use it, then the following procedures apply:

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   c. If a request is approved, the right-of-way shall be divided into two equal parts, with each half becoming the property of the respective abutting owner. If the applicant desires to own the entire width, he or she must negotiate with the opposite landowner.

## Signatures

| | | |
|---|---|---|
| Applicant (signature): Maluka Garden | | Date: 8/18/23 |
| **Affected Property Owners:** | | |
| Signature: Lorenza Garcia | Print: Lorenza Garcia | Date: |
| Signature: | Print: Maria Hernandez | Date |
| Signature: | Print: | Date |
| Signature: | Print: | Date |

*The Vacation of right-of-way/public utility easement/land/street shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.*

## FOR OFFICE USE ONLY

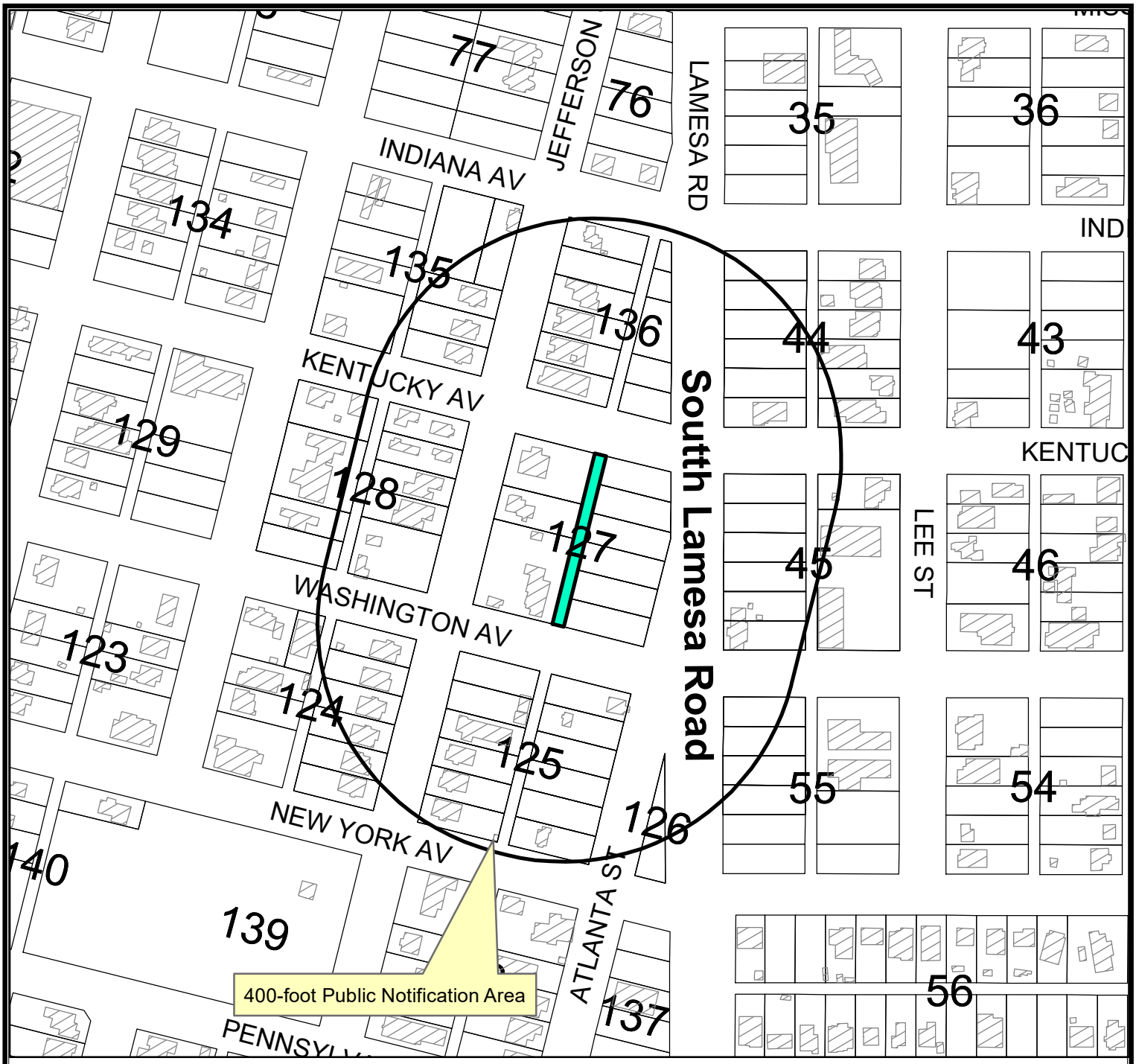
☐ 1 FOLDED Copy of Survey ☐ Survey in Digital Format (PDF/JPEG)

☐ Application Fee

Check #_____

| | |
|---|---|
| Received By: | Date: |

**Application will not be considered for scheduling until reviewed by a planner.**




# LOCATION MAP

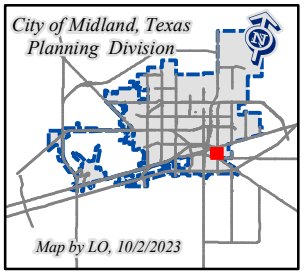
**V-23-0055** **Scale: 1" = 3,229'**

Consider a request by Maria Luisa Gardea and Guadelupe Amparan for a vacation of a 0.138-acre alley, located within Block 127, Southern Addition, City and County of Midland, Texas.

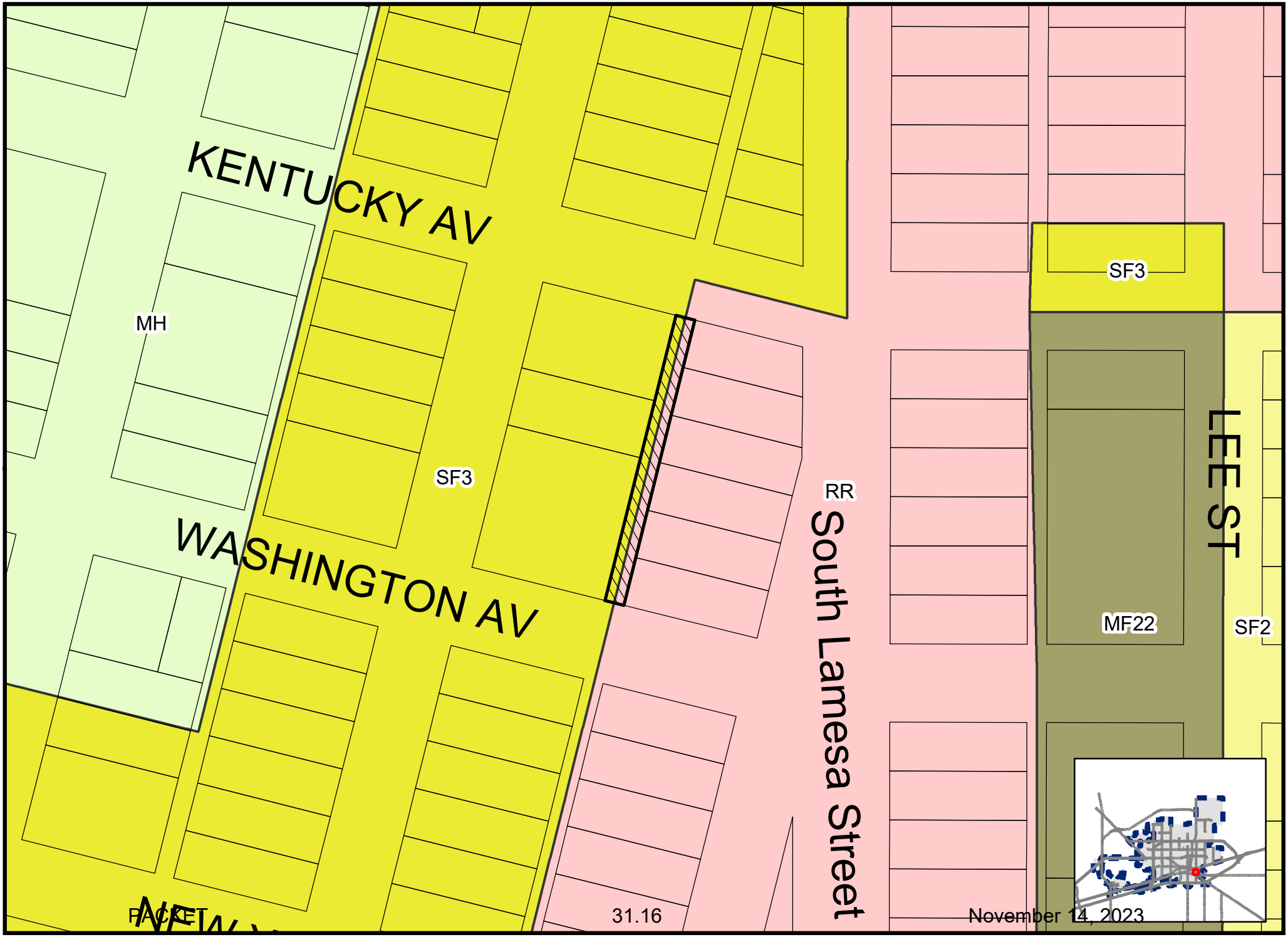
Generally located south of East Kentucky Avenue, approximately 100 feet west of South Lamesa Road. (Council District 2)

**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




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THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY NOR IS IT DESIGNED TO BE USED AS THE ONLY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.




*Map By DH, 10/13/2023*

**V-23-0055**

**Scale: 1" = 1,474'**

# ZONING MAP

© THE CITY OF MIDLAND - 2021: THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT, NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN. THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.

Legal Description of the Alley in Block 127,

**SOUTHERN ADDITION,**

as recorded in Volume 2, Page 2, Deed Records of Midland County,
to the City of Midland, Midland County, Texas

Boundary being further described by metes and bounds as follows:

BEGININNG at (N= 10,693,338.79' and E= 1,760,076.14') a 1/2" iron rod with a plastic cap marked "PLS 1974" set in the South boundary of E. Kentucky Avenue at the Northwest corner of Lot 1, said Block 127, and the Northeast corner of this tract, from whence a 1/2" iron rod set erroneously by others bears N08°35'W, a distance of 1.2 feet;

THENCE S00°10'05"E with the West line of Lots 1 through 3, at 150 feet pass a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the common West corner of Lots 3 and 4 said Block 127 from whence a 1/2" iron rod erroneously set by others bears N01°06'E a distance of 1.1 feet, continuing with the West line of Lots 4 through 6, a total distance of 300.00 feet to a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the Southeast corner of this tract and the Southwest corner of said Lot 6, from whence a 1/2" iron rod set erroneously by others bears N00°32'W a distance of 1.1', also a 1/2" iron rod found at the Southeast corner of said Lot 6 bears N89°34'19"E, a distance of 140.00 feet:

THENCE S89°34'19"W with the North line of E. Washington Avenue, a distance of 20.00 feet to a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the Southeast corner of Lot 7, said Block, at Southwest corner of this tract from whence a 1/2" iron rod found at or near the Southeast corner of Lot 6, Block 128, bears S89°34'19"W, a distance of 219.71 feet:

THENCE N00°10'05"W with the East line of Lots 6 through 12, said Block 127, a distance of 300.00 feet to a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the Northeast corner of Lot 12, said Block and the Northwest corner of this tract:

THENCE N89°34'19"E along the South boundary line of E. Kentucky Avenue, a distance of 20.00 feet to the Point of Beginning, containing an area of 6000 square feet, or 0.138 acres of land.

Bearings, distances, and coordinates are relative to the Texas State Plane Coordinate System, NAD 1983/CORS, Central Zone, in U.S. Survey Feet.

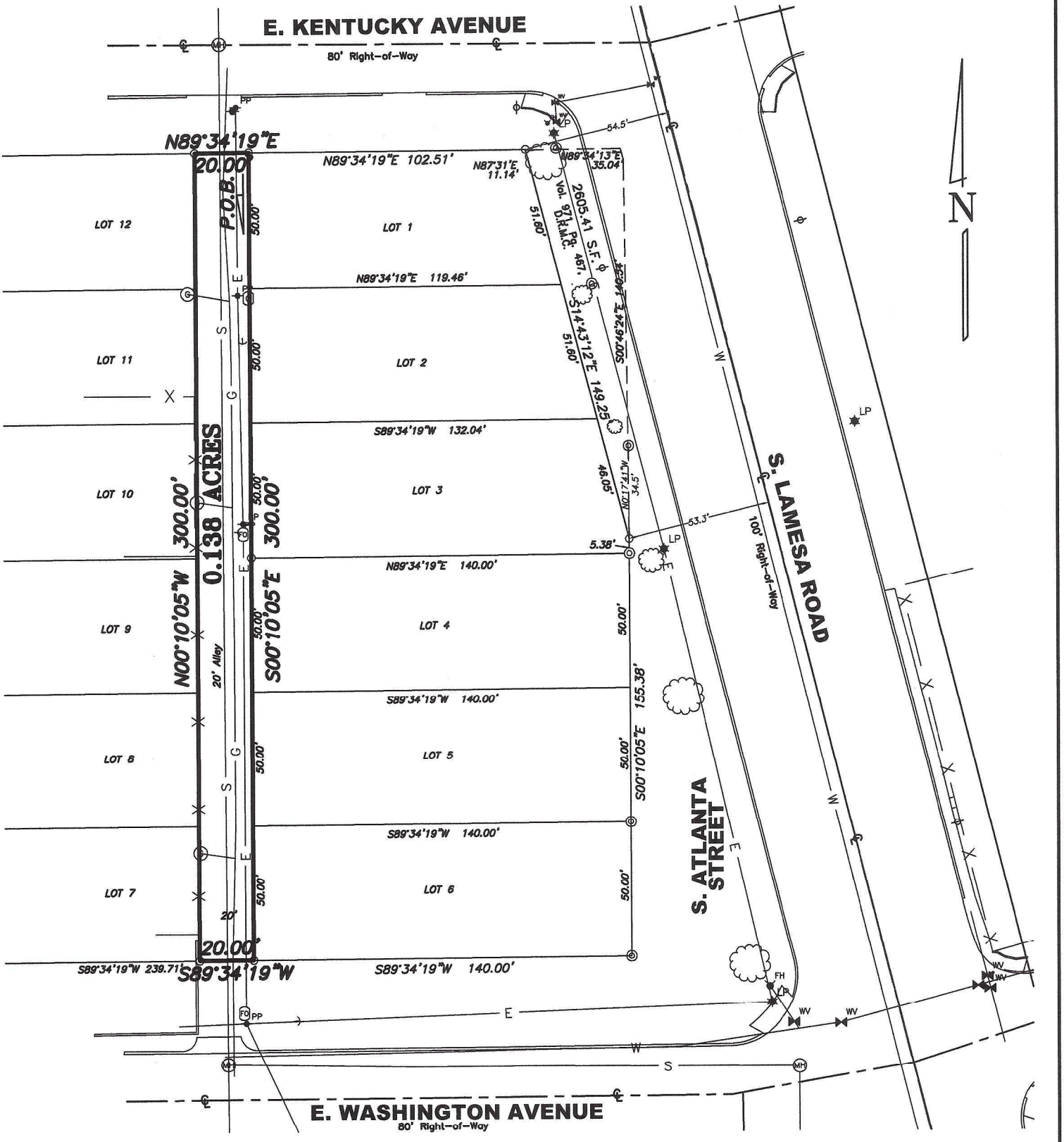
I, J. Stan Piper, Registered Professional Land Surveyor, do hereby certify that this plat and legal description is based on an actual survey made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief as surveyed on the ground on August 2, 2023.

J. Stan Piper August 2, 2023
Registered Professional Land Surveyor #1974

STATE OF TEXAS REGISTERED J. STAN PIPER 1974 PROFESSIONAL LAND SURVEYOR



PIPER SURVEYING Inc. Firm No. 10155200; Box 60432; Midland, Texas 79711; 432.550.7810




○ = Set 1/2" Iron Rod with Plastic Cap marked "PLS 1974" ◎ = Found 1/2" Iron Rod Unless Noted Otherwise

Drawing File: BerryEngr-ALTASouthernAddnFD; Crd File: Southern83c88; Drawn by: Gene M. Rodriguez; Scale: 1"=50'; Date: 8/2/23

# BOUNDARY SURVEY OF THE ALLEY IN BLOCK 127, SOUTHERN ADDITION, AS RECORDED IN VOLUME 2, PAGE 2, DEED RECORDS OF MIDLAND COUNTY, TO THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

Prepared for:
Berry Engineering
63 Broad St. NW
Cleveland, TN 37311

Sheet 2 of 2 – See Sheet 1 of 2 for Certificate November 14, 2023



Firm No. 10155200
PIPER SURVEYING P.O. BOX 60432; MIDLAND, TEXAS 79711; 432.550.7810









## Landon J. Ochoa

**From:** LReyna@midcad.org
**Sent:** Monday, October 9, 2023 3:54 PM
**To:** Landon J. Ochoa
**Subject:** Re: V-23-0055, Alley Vacation Valuation
**Attachments:** V-23-0055, TaxVacMCAD vac ltr.pdf; V-23-0055, Survey (Exhibit A).pdf; V-23-0055, Location Map.pdf

Landon see below!

Market Value

6000 sq ft X $2.00 = $12,000

Sincerely,

***Lisa Reyna, RPA***
***Assistant Chief Appraiser***
***Midland Central Appraisal District***
***4631 Andrews Hwy***
***Midland, TX 79703***
***Phone (432) 699-4991***
***Fax (432) 689-7185***

From: "Landon J. Ochoa" <ljochoa@midlandtexas.gov>
To: Lisa Reyna <lreyna@midcad.org>
Date: 10/03/2023 12:07 PM
Subject: V-23-0055, Alley Vacation Valuation

---

Lisa,

Attached is the letter detailing a request for a vacation. Please also see the attached map and survey for this property and provide us with a valuation by October 10, 2023. Thank you!

Respectfully,

Landon Ochoa
Senior Planner
Planning Division
Development Services
O. 432-685-7405
ljochoa@midlandtexas.gov

300 N. Loraine | P.O. Box 1152 | Midland, TX 79702

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ATMOS ENERGY

West Texas Division
P.O. Box 1111,
Midland, Texas 79702

City of Midland
Landon Ochoa
Planning Division
Development Services
300 N. Loraine
Midland, Texas 79701

October 9, 2023

Re: Case Name: 406-410 S. Lamesa
Case Number: V-23-0055

Mr. Ochoa,

Atmos Energy currently has facilities located within the above-described alley Right of Way west. of S. Lamesa between E. Kentucky & E. Washington. We currently have a gas main that crosses the proposed vacate area. Atmos would have no objection to this vacation if a utility easement is maintained within the existing alley.
Please let me know if you have any further questions.

Sincerely,

Mark Lieb

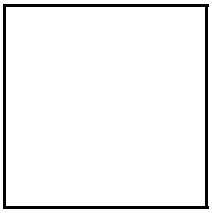
Mark Lieb
Project Specialist
Atmos Energy/Permian Basin
432-967-0370 cell
mark.lieb@atmosenergy.com

## Landon J. Ochoa

**From:** Landon J. Ochoa
**Sent:** Sunday, October 15, 2023 3:06 PM
**To:** Landon J. Ochoa
**Subject:** FW: V-23-0055, 406-410 Alley Vacation (Oncor)

---

**From:** Molina, Sergio <Sergio.Molina@oncor.com>
**Sent:** Wednesday, October 11, 2023 8:18 PM
**To:** Landon J. Ochoa <ljochoa@midlandtexas.gov>; Arguello, Martin <Martin.Arguello@oncor.com>
**Subject:** RE: V-23-0055, 406-410 Alley Vacation (Oncor)



Landon,

Oncor has electric facilites on this alley that will need to be relocated in order to vacate this area.

Sergio Molina, P.E.
Oncor | NCM Manager WTX
Cell: 214.970.4143

My Manager: Hannah Hamilton
Cell: 432.894.4601 email: Hannah.Hamilton@oncor.com

## Landon J. Ochoa

**From:** UNDERWOOD, JERRY D <ju1659@att.com>
**Sent:** Thursday, October 5, 2023 11:18 AM
**To:** Landon J. Ochoa
**Subject:** RE: V-23-0055, 406-410 Alley Vacation (AT&T)

**Follow Up Flag:** Follow up
**Flag Status:** Flagged



As long as we keep an easement to keep our cable in place I am good with it.

Thanks,
Jerry

---

**From:** Landon J. Ochoa <ljochoa@midlandtexas.gov>
**Sent:** Thursday, October 5, 2023 11:09 AM
**To:** UNDERWOOD, JERRY D <ju1659@att.com>
**Subject:** RE: V-23-0055, 406-410 Alley Vacation (AT&T)

Jerry,

See the attached site plan. There will be a utility and vehicular access easement in the to be vacated alley. No structures will be built there. Would this change your comment?

---

**From:** Landon J. Ochoa
**Sent:** Tuesday, October 3, 2023 12:33 PM
**To:** UNDERWOOD, JERRY D <ju1659@att.com>
**Subject:** RE: V-23-0055, 406-410 Alley Vacation (AT&T)

Thank you for your response, Jerry.

---

**From:** UNDERWOOD, JERRY D <ju1659@att.com>
**Sent:** Tuesday, October 3, 2023 12:24 PM
**To:** Landon J. Ochoa <ljochoa@midlandtexas.gov>
**Subject:** RE: V-23-0055, 406-410 Alley Vacation (AT&T)

We have cable in that alleyway as well that they will need pay to reroute if they want it vacated.

Thanks,
Jerry

---

**From:** Landon J. Ochoa <ljochoa@midlandtexas.gov>
**Sent:** Tuesday, October 3, 2023 12:16 PM
**To:** UNDERWOOD, JERRY D <ju1659@att.com>
**Subject:** V-23-0055, 406-410 Alley Vacation (AT&T)

Good morning, Jerry.

Please see the attached letter and supporting documents and provide comments by October 10, 2023 as this request will be going to the October 24 City Council meeting. Thank you!

Respectfully,

Landon Ochoa
Senior Planner
Planning Division
Development Services
O. 432-685-7405
ljochoa@midlandtexas.gov






300 N. Loraine | P.O. Box 1152 | Midland, TX 79702

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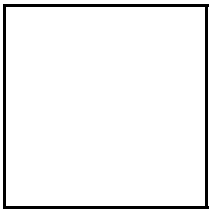
CAUTION: This email originated from outside your organization — exercise caution when opening attachments or clicking links, especially from unknown senders.

## Landon J. Ochoa

**From:** Landon J. Ochoa
**Sent:** Sunday, October 15, 2023 3:02 PM
**To:** Landon J. Ochoa
**Subject:** FW: V-23-0055, 406-410 Alley Vacation (Grande)

---

**From:** Ruben Guerra <ruben.guerra@astound.com>
**Sent:** Friday, October 13, 2023 10:00 AM
**To:** Landon J. Ochoa <ljochoa@midlandtexas.gov>
**Subject:** Re: V-23-0055, 406-410 Alley Vacation (Grande)



That's fine but relocations are not so cheap these days. I just want them to understand that if it is underground it will be expensive. I just want them to know upfront and not later down the road.

**Thank You**
Ruben Guerra
**Construction Coordinator**
O: 432-272-3088
C: 432-653-9369
Ruben.Guerra@astound.com
**Astound Business Solutions**
**Powered by RCN | Grande | Wave**
**astound.com**

On Fri, Oct 13, 2023 at 9:57 AM Landon J. Ochoa <ljochoa@midlandtexas.gov> wrote:

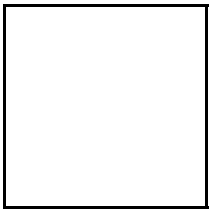
> Okay, so you are okay with the vacation as long as the easement is maintained and as long the applicant pays for the relocation?

## Landon J. Ochoa

**From:** Landon J. Ochoa
**Sent:** Sunday, October 15, 2023 3:03 PM
**To:** Landon J. Ochoa
**Subject:** FW: External E-mail - V-23-0055, 406-410 Alley Vacation (Altice)

---

**From:** Luis Montez <Luis.Montez@AlticeUSA.com>
**Sent:** Friday, October 13, 2023 11:10 AM
**To:** Chris Berry <cberry@berryengineers.com>; Landon J. Ochoa <ljochoa@midlandtexas.gov>; Eron Zapata <Eron.Zapata@AlticeUSA.com>; Ricardo Cardona <Ricardo.Cardona@AlticeUSA.com>
**Cc:** Ronnye Kettler <ronnye.kettler@g2kpartners.com>; Jeffrey S. Fisher <jsfisher@midlandtexas.gov>
**Subject:** RE: External E-mail - V-23-0055, 406-410 Alley Vacation (Altice)



Mr. Berry,
My name is, Luis Montez
Construction coordinator for, Optimum. We do have aerial fiber & coax on those poles.
If we relocate to the new proposed poles, the builder is responsible for all costs remove & relocate our plant.
I am currently looking at this project & will get you a cost later.

# City Council Meeting

**Item Number:** 32

**Meeting Date:** October 24, 2023, November 14, 2023

**To:** City Council / City Manager

**From:** Landon Ochoa, Senior Planner

**Subject:** AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOTS 1 THROUGH 6 AND A 0.138-ACRE TRACT OF LAND, BLOCK 127, SOUTHERN ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF SOUTH LAMESA ROAD AND EAST KENTUCKY AVENUE), BY PERMITTING A METAL SCREENING FENCE IN LIEU OF A MASONRY SCREENING WALL; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION (DISTRICT 2) (DEVELOPMENT SERVICES)

---

**Purpose:**

The applicants, Maria Luisa Gardea and Guadelupe Amparan are requesting a Special Exception from the City of Midland Zoning Ordinance, to allow a masonry screening wall to not be required between a nonresidential zoning district and a residential zoning district.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

No City funds are required to process this request.

**Discussion:**

The property is located at 410 South Lamesa and is a vacant lot. The applicant is requesting a special exception for a masonry screening wall to not be required between a nonresidential

zoning district and a residential zoning district. Lots 1 through 6 are currently zoned RR, Regional Retail District. Lots 7-12, adjacent to Lots 1 through 6, are zoned SF-3, Single-Family Dwelling District. Per our City of Midland Zoning Ordinance, Section *6.01.A.1– Screening Requirements for Residential and Nonresidential Properties,* concerning required screening between nonresidential and residential districts, “A masonry screening wall separating a nonresidential zoning district from a residential zoning district shall be required pursuant to this section except when deemed physically impractical by the City Council.”

This request has been circulated to all pertinent City departments for review. Below are the departments’ comments.

**Fire: (Approved)**

No comments.

**Building: (Approved)**

No comments.

**Engineering: (Approved)**

No objections to zoning/zone change. [For Applicant’s Information Only.]

**Code Compliance: (Approved)**

No Oil and Gas issues.

**Transportation: (Approved)**

Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations. [For the Applicant’s information only.]

No objection to zone change. [For the Applicant’s information only.]

**Planning (Approved):**

Though not made of masonry, the property already has a metal fence in place that fulfills the intent of Section 6.01.A.1. Requiring the fence to be demolished and a masonry wall to be erected would create an unnecessary hardship. Additionally, the neighboring property owners are in agreement with this request since Dollar General has agreed to maintain the fence, include a vehicular access easement once the alley is vacated, and install gates along the fence to allow rear access to the neighboring properties.

The request fits with the Tall City Tomorrow Comprehensive Plan, Chapter 3-Land Use Vision. The land use map designates this property as Urban-Medium Neighborhood Center (U-M NC) which calls for a mix of traditional neighborhood businesses including small scale commercial,

office, civic and residential. Therefore, the placement of a retail store at this location would be consistent with this designation.

Due to these factors, staff is recommending approval of this special exception subject to conditions A through F.

**Condition:**

**A. That the property shall significantly conform to the site plan shown in Exhibit "A" and is attached hereto and incorporated herein.**

**B. That the alley in Block 127, Southern Addition be vacated.**

**C. That a replat of Lots 1 through 6 and the alley into one lot be approved.**

**D. That a vehicular access easement be provided.**

**E. That gates be installed along the screening fence to allow rear access to Lots 7 through 12.**

**F. That the owner of Lots 1 through 6 be responsible for maintaining the screening fence.**

**Letters of Objection:**

Staff has not received any letters of objection as of October 16, 2023.

**Attachments:**

Survey (Exhibit A)
Site Plan (Exhibit B)
Application
Maps

City Manager's Office

**ORDINANCE NO. _____**

**AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOTS 1 THROUGH 6 AND A 0.138-ACRE TRACT OF LAND, BLOCK 127, SOUTHERN ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF SOUTH LAMESA ROAD AND EAST KENTUCKY AVENUE), BY PERMITTING A METAL SCREENING FENCE IN LIEU OF A MASONRY SCREENING WALL; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION**

**WHEREAS**, the City Council modified the authority of the Board of Adjustment in Title XI, Chapter 1, Section 7 ("Section 11-1-7") of the Midland City Code; and

**WHEREAS,** Section 11-1-7 provides for the consideration of requests for special exceptions to the Midland Zoning Ordinance; and

**WHEREAS,** the Council finds that satisfactory evidence has been presented that the use to be authorized by the granting of the special exception will not be detrimental to the health, safety, comfort and welfare of the occupants of the land area near the tract on which the use to be allowed by special exception will be located; and

**WHEREAS,** the Council finds that it is clearly and specifically authorized by the terms of Section 11-1-7 to grant such a special exception, and said exception will be in harmony with the general purposes and intent of the zoning provisions of the Midland City Code; and

**WHEREAS**, after a full and fair public hearing at which all parties in interest were offered an opportunity to be heard, all pursuant to law, the Council finds it to be in the public interest to grant a special exception to the Zoning Ordinance, pursuant to Section 11-1-7, for the purposes herein stated, subject to special conditions;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE**

**CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That a special exception is hereby granted for the property described as Lots 1 through 6 and a 0.138-acre tract of land, Block 127, Southern Addition, City and County of Midland, Texas (the "Property"), said 0.138-acre tract of land being more fully described by metes and bounds in Exhibit "A", which is attached hereto and incorporated herein. Said special exception shall allow a metal screening fence in lieu of a masonry screening wall required by Section 11-1-6.01 of the City Code.

**SECTION TWO.** Said special exception is subject to the following special conditions:

A. A metal screening fence shall be constructed and maintained in lieu of a masonry screening wall required by Section 11-1-6.01 of the City Code.

B. That gates shall be installed along the metal screening fence to allow rear access to Lots 7 through 12, Block 127, Southern Addition, City and County of Midland, Texas.

C. That the owner(s) of Lots 1 through 6, Block 127, Southern Addition, City and County of Midland, Texas, shall maintain the metal screening fence.

**SECTION THREE.** The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION FOUR.** If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION FIVE.** The penalty for violation of this ordinance shall be in accordance

with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION SIX.** The City Secretary is hereby authorized and directed to file this ordinance with the Office of the County Clerk for purposes of recordation.

**SECTION SEVEN.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2023; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2023, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Cristina Burns, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

# EXHIBIT "A"

Legal Description of the Alley in Block 127,
**SOUTHERN ADDITION,**
as recorded in Volume 2, Page 2, Deed Records of Midland County,
to the City of Midland, Midland County, Texas

Boundary being further described by metes and bounds as follows:

BEGININNG at (N= 10,693,338.79' and E= 1,760,076.14') a 1/2" iron rod with a plastic cap marked "PLS 1974" set in the South boundary of E. Kentucky Avenue at the Northwest corner of Lot 1, said Block 127, and the Northeast corner of this tract, from whence a 1/2" iron rod set erroneously by others bears N08°35'W, a distance of 1.2 feet;

THENCE S00°10'05"E with the West line of Lots 1 through 3, at 150 feet pass a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the common West corner of Lots 3 and 4 said Block 127 from whence a 1/2" iron rod erroneously set by others bears N01°06'E a distance of 1.1 feet, continuing with the West line of Lots 4 through 6, a total distance of 300.00 feet to a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the Southeast corner of this tract and the Southwest corner of said Lot 6, from whence a 1/2" iron rod set erroneously by others bears N00°32'W a distance of 1.1', also a 1/2" iron rod found at the Southeast corner of said Lot 6 bears N89°34'19"E, a distance of 140.00 feet:

THENCE S89°34'19"W with the North line of E. Washington Avenue, a distance of 20.00 feet to a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the Southeast corner of Lot 7, said Block, at Southwest corner of this tract from whence a 1/2" iron rod found at or near the Southeast corner of Lot 6, Block 128, bears S89°34'19"W, a distance of 219.71 feet:

THENCE N00°10'05"W with the East line of Lots 6 through 12, said Block 127, a distance of 300.00 feet to a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the Northeast corner of Lot 12, said Block and the Northwest corner of this tract:

THENCE N89°34'19"E along the South boundary line of E. Kentucky Avenue, a distance of 20.00 feet to the Point of Beginning, containing an area of 6000 square feet, or 0.138 acres of land.

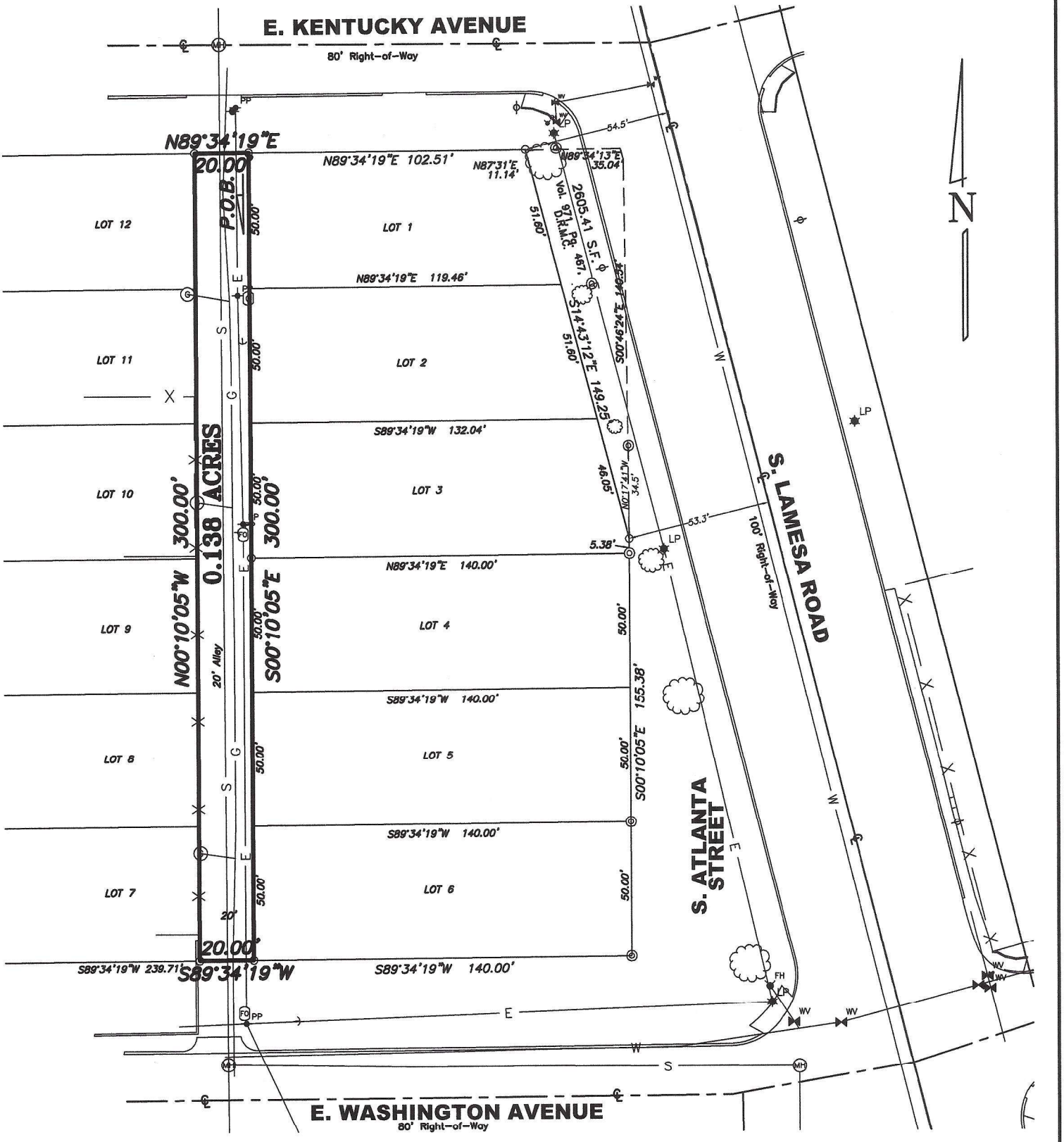
Bearings, distances, and coordinates are relative to the Texas State Plane Coordinate System, NAD 1983/CORS, Central Zone, in U.S. Survey Feet.

I, J. Stan Piper, Registered Professional Land Surveyor, do hereby certify that this plat and legal description is based on an actual survey made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief as surveyed on the ground on August 2, 2023.

J. Stan Piper August 2, 2023
Registered Professional Land Surveyor #1974

STATE OF TEXAS REGISTERED J. STAN PIPER 1974 PROFESSIONAL LAND SURVEYOR


PIPER SURVEYING Inc. Firm No. 10155200; Box 60432; Midland, Texas 79711; 432.550.7810




○ = Set 1/2" Iron Rod with Plastic Cap marked "PLS 1974" ◎ = Found 1/2" Iron Rod Unless Noted Otherwise

Drawing File: BerryEngr-ALTASouthernAddnFD; Crd File: Southern83c88; Drawn by: Gene M. Rodriguez; Scale: 1"=50'; Date: 8/2/23

# BOUNDARY SURVEY OF THE ALLEY IN BLOCK 127, SOUTHERN ADDITION, AS RECORDED IN VOLUME 2, PAGE 2, DEED RECORDS OF MIDLAND COUNTY, TO THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

Prepared for:
Berry Engineering
63 Broad St. NW
Cleveland, TN 37311



Sheet 2 of 2 – See Sheet 1 of 2 for Certification

Firm No. 10155200
PIPER SURVEYING P.O. BOX 60432; MIDLAND, TEXAS 79711; 432.550.7810

MIDLAND
Planning Division

**Special Exception Application**

Project Number: _____
Case Number: E-23-0105

| **Applicant** *(if acting as Agent, see affidavit on page 2)* Printed Name: | | Phone ( ) Email | |
|---|---|---|---|
| Address | City | State | Zip |

| **Property Owner** Printed Name: Maria Luisa ~~Amparan~~ Gardea | | Phone (432) 813-3042 Email | |
|---|---|---|---|
| Address 403 Waverly | City Midland | State TX | Zip 79703 |

| **Representative** *(if different from Applicant or Property Owner)* Firm: _____ Printed Name: | | Phone ( ) Email | |
|---|---|---|---|
| Address | City | State | Zip |

**Street Address:** 400-404 S Lamesa

**Legal Description**
Lot: 1-3 Block: 127 Subdivision: Southern Addition

**Current Zoning:** RR

**This property qualifies as an exception to the City Code because:**

- ☐ It is an expansion of a nonconforming use.
- ☐ There are existing nonconforming structures in the area.
- ☐ The addition of architectural or other projections of a minor extent.

**Reason for Request:** Code requires an 8' masonry fence along western boundary of proposed project. As part of proposed alley abandonment along this property line, the adjacent property owners have requested the developer improve (provide gates) and extend their existing metal screen fences.

This exception is needed to meet the desires of the adjacent property owners for their agreement to the alley abandonment.

**Submittal and Fees**
**Items to be submitted with this application form:**

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Site Plan showing:
  - Parking
  - Building Footprint
- Digital Copies of Site Plan (PDF/JPEG)

| Signatures | |
|---|---|
| Applicant (signature): | Date: |
| Applicant (printed): | |
| Property Owner (signature): DocuSigned by: | Date: 8/16/2023 \| 2:45 PM EDT |
| Property Owner (printed) : Guadalupe Amparan | |

*The Special Exception shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.*

If an agent is authorized by the property owner to file and execute the application on behalf of the property owner, the agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared _____ who, being by me duly sworn, upon oath says: That (s)he is authorized by _____, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

_____
Authorized Agent (*signature*)

Subscribed and sworn to before me, this _____ day of _____, 20 ___, to certify which witness my hand and seal of office.

_____
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

| FOR OFFICE USE ONLY | |
|---|---|
| ☑ Property Owner Authorization | ☑ Dimensioned Site Plan |
| ☑ Application Fee | ☑ Plans in Digital Format (PDF/JPEG) |
| Check # paid | |
| Received By: Jeff Fisher | Date: 9-5-23 |

****Application will not be considered for scheduling until reviewed by a planner.****

DocuSign Envelope ID: 385F819A-B7AD-467E-B4FD-D1DAD63AA867

MIDLAND Planning Division

# Special Exception Application

Project Number: _____

Case Number: E-23-0105

| **Applicant** *(if acting as Agent, see affidavit on page 2)* Printed Name: | | Phone ( ) Email | |
|---|---|---|---|
| Address | City | State | Zip |

| **Property Owner** Printed Name: Guadalupe Amparan | | Phone (432) 425-0276 Email midlandgirl215@yahoo.com | |
|---|---|---|---|
| Address 1423 E Jax Ave | City Midland | State TX | Zip 79707 |

| **Representative** *(if different from Applicant or Property Owner)* Firm: _____ Printed Name: | | Phone ( ) Email | |
|---|---|---|---|
| Address | City | State | Zip |

**Street Address:** 406-410 S Lamesa

**Legal Description**
Lot: 4-6 Block: 127 Subdivision: Southern Addition

**Current Zoning:** RR

**This property qualifies as an exception to the City Code because:**

- ☐ It is an expansion of a nonconforming use.
- ☐ There are existing nonconforming structures in the area.
- ☐ The addition of architectural or other projections of a minor extent.

**Reason for Request:** Code requires an 8' masonry fence along western boundary of proposed project. As part of proposed alley abandonment along this property line, the adjacent property owners have requested the developer improve (provide gates) and extend their existing metal screen fences. This exception is needed to meet the desires of the adjacent property owners for their agreement to the alley abandonment.

**Submittal and Fees**
**Items to be submitted with this application form:**

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Site Plan showing:
  - Parking
  - Building Footprint
- Digital Copies of Site Plan (PDF/JPEG)

| Signatures | |
|---|---|
| Applicant (signature): | Date: |
| Applicant (printed): | |
| Property Owner (signature): Melissa Gordea | Date: 8/16/23 |
| Property Owner (printed) : | |

*The Special Exception shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.*

If an agent is authorized by the property owner to file and execute the application on behalf of the property owner, the agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared _____ who, being by me duly sworn, upon oath says: That (s)he is authorized by _____, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

_____
Authorized Agent (*signature*)

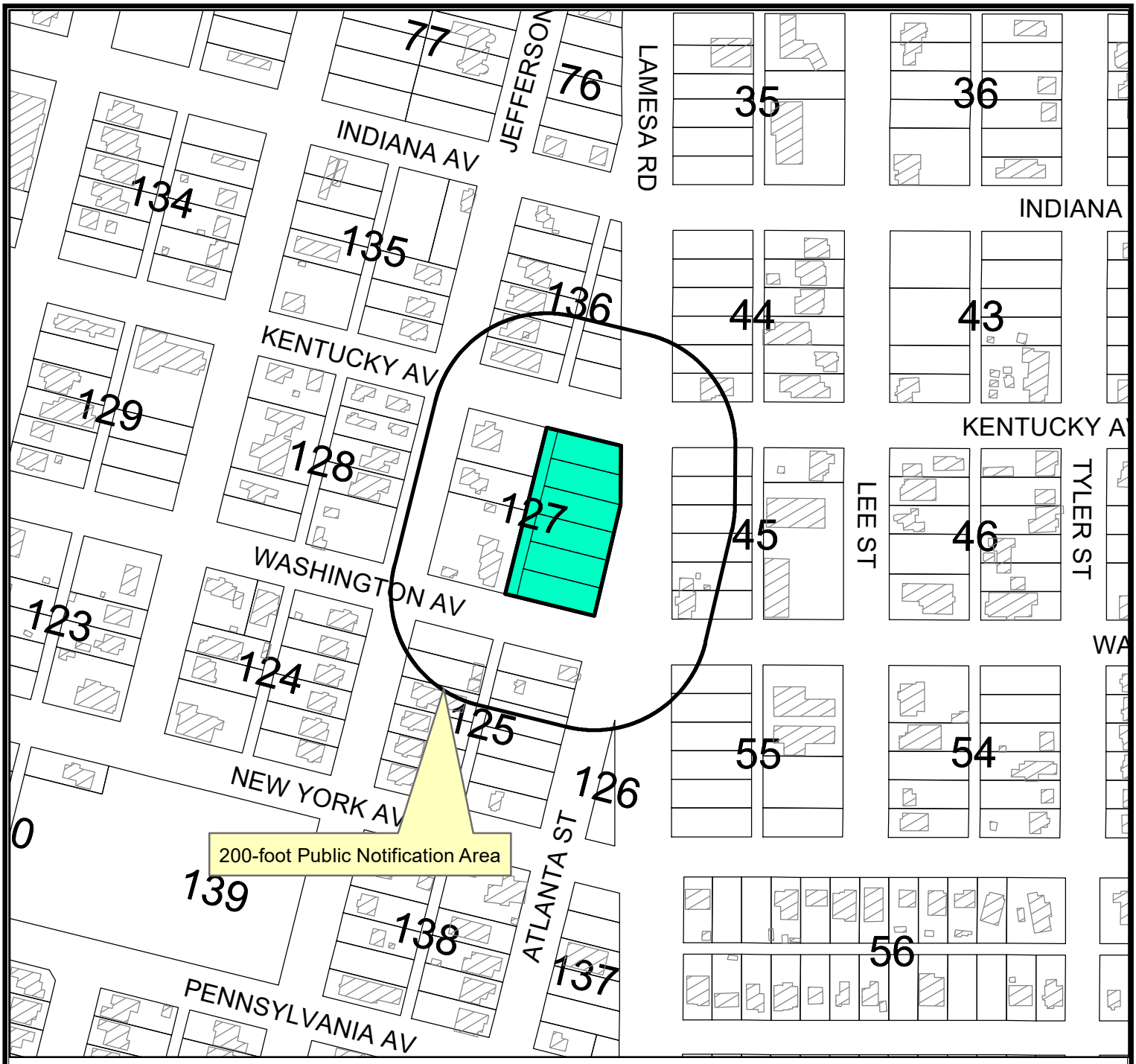
Subscribed and sworn to before me, this _____ day of _____, 20 ___, to certify which witness my hand and seal of office.

_____
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

**FOR OFFICE USE ONLY**

| | |
|---|---|
| ☑ Property Owner Authorization | ☑ Dimensioned Site Plan |
| ☑ Application Fee | ☑ Plans in Digital Format (PDF/JPEG) |
| Check # paid | |
| Received By: Jeff Fisher | Date: 9-5-23 |

****Application will not be considered for scheduling until reviewed by a planner.****




# LOCATION MAP

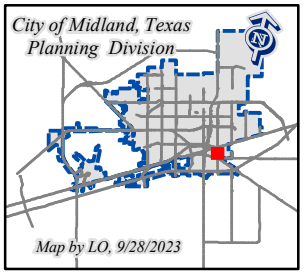
**E-23-0105** **Scale: 1" = 3,000'**

Consider a request by Luisa Gardea and Guadelupe Amparan for a Special Exception to the City of Midland Zoning Ordinance, Section 6.01.A.1 – Screening Requirements for Residential and Nonresidential Properties, for a masonry screening wall to not be required between a nonresidential zoning district and a residential zoning district on Lots 1 through 6, Block 127, Southern Addition, and a 0.138-acre alley to be abandoned located in Block 127, Southern Addition, City and County of Midland, Texas.

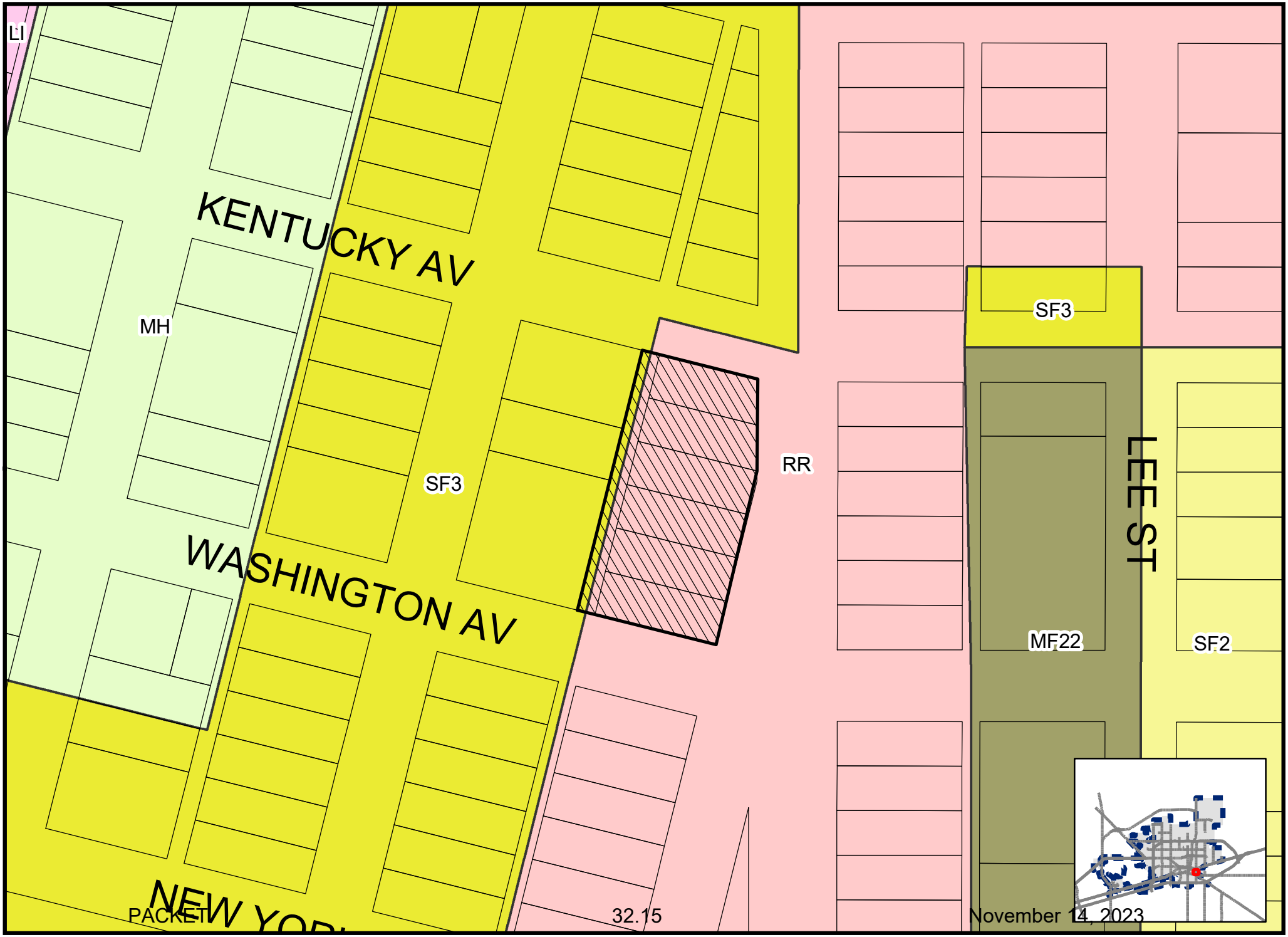
Generally located on the southwest corner of the intersection of South Lamesa Road and East Kentucky Avenue. (Council District 2)

**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




©THE CITY OF MIDLAND - 2021
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND PRIOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.




*Map By LO, 9/28/2023*

**E-23-0105**

**Scale: 1" = 1,617'**

# ZONING MAP

© THE CITY OF MIDLAND - 2021: THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT, NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN. THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.

## SITE DATA

| | |
|---|---|
| EXISTING ZONING | RR |
| REZONING REQUIRED? | NO |
| SITE AREA | 0.93± AC |
| STORE AREA | 9,180 S.F. |
| PARKING REQUIRED | 31 SPACES |
| PARKING PROVIDED | 31 SPACES |
| VARIANCES ANTICIPATED? | NO |
| GAS AVAILABLE? | YES |

**PROJECT #:** _____

**MIDLAND, TX**
**STORE DESIGN PRELIMINARY SITE PLAN APPROVAL**

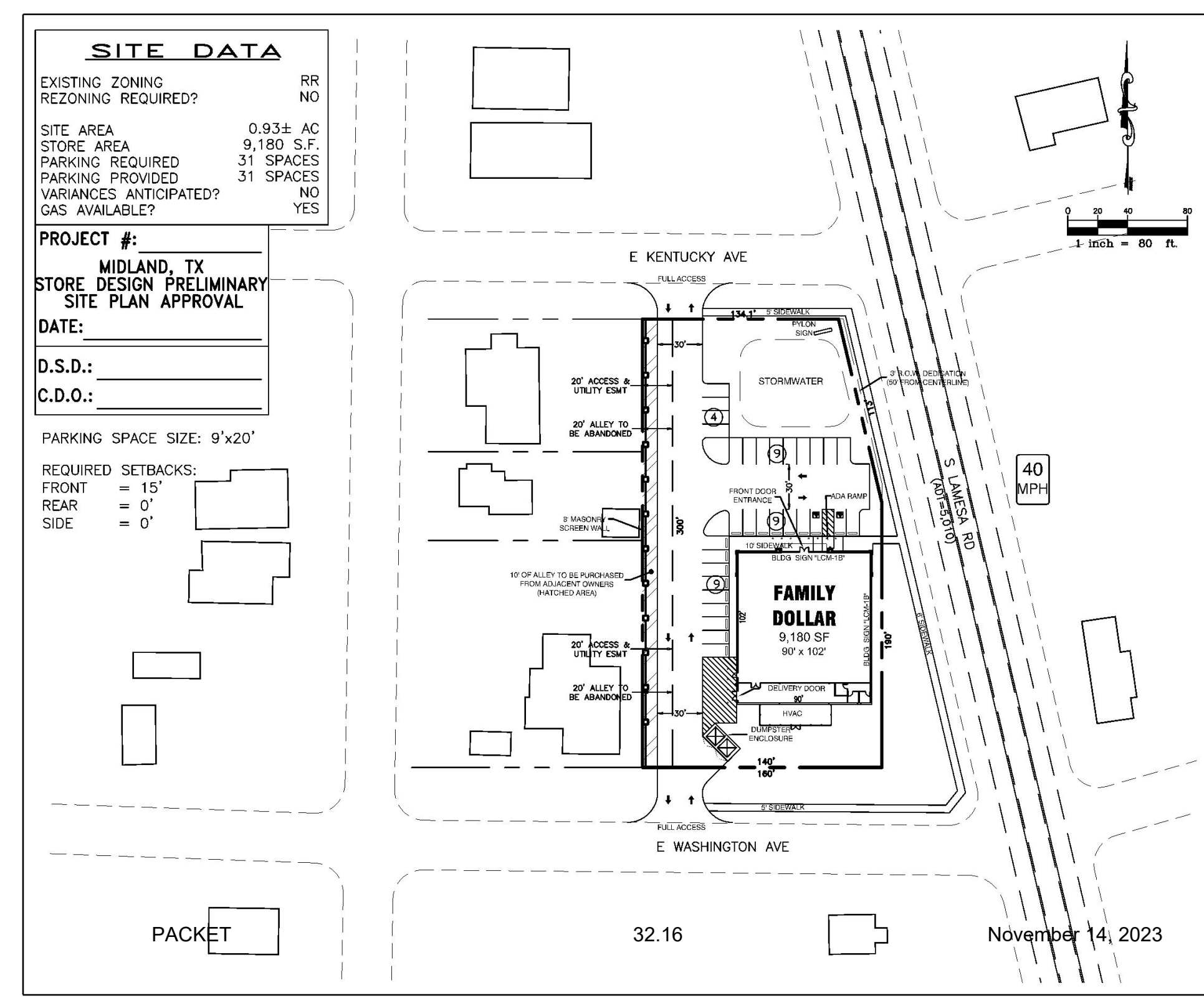
**DATE:** _____

**D.S.D.:** _____

**C.D.O.:** _____

PARKING SPACE SIZE: 9'x20'

REQUIRED SETBACKS:
FRONT = 15'
REAR = 0'
SIDE = 0'





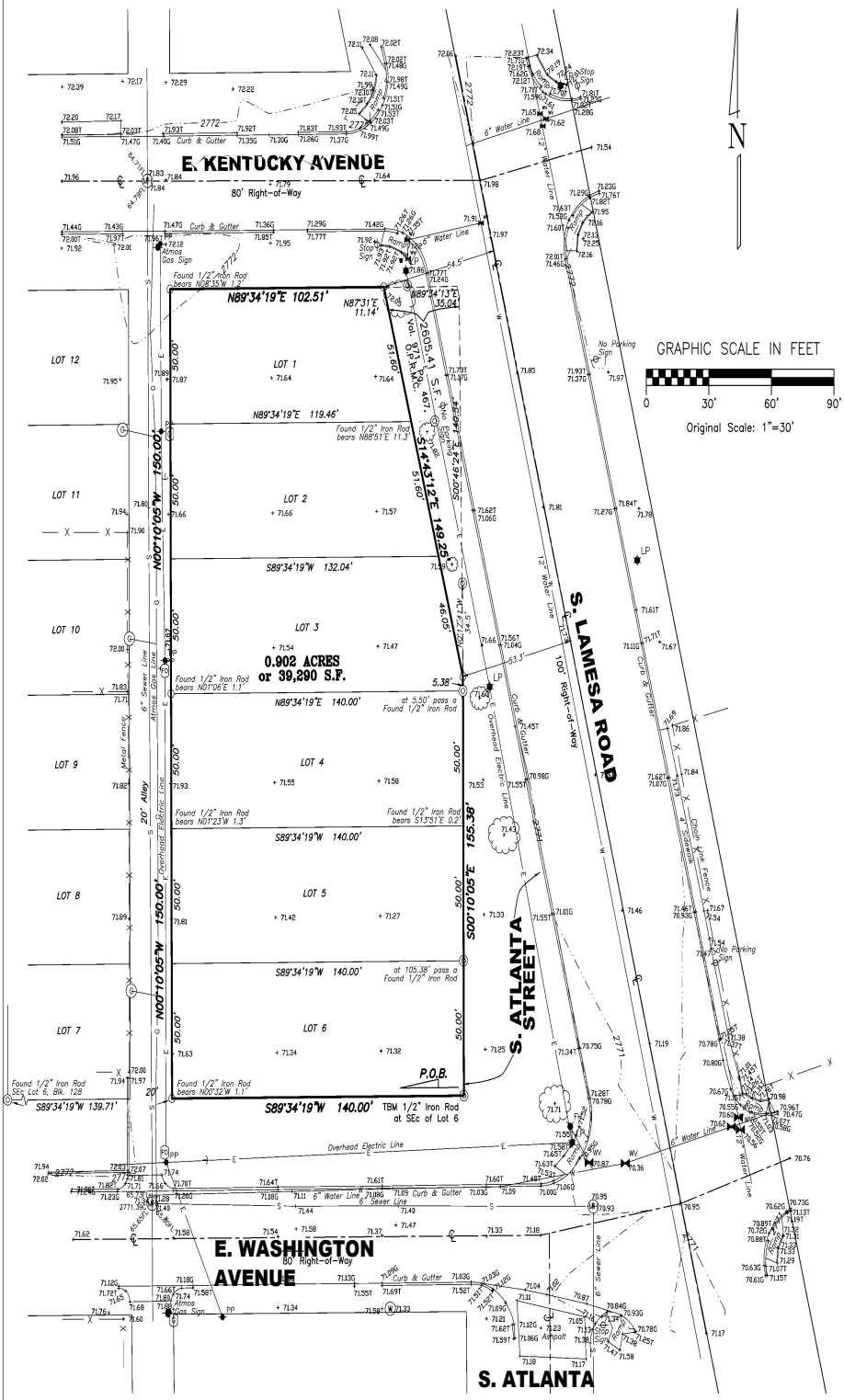
BERRY ENGINEERS LLC
63 BROAD ST NW
CLEVELAND, TN 37311
423-790-5880


DEVELOPER:
G2K PARTNERS
33300 EGYPT LANE, SUITE D-200
MAGNOLIA, TX 77354

PROJECT:
**FAMILY DOLLAR**
S LAMESA RD
MIDLAND, TX

SHEET NAME:
CONCEPTUAL SITE PLAN

DATE: 08/21/2023




# ALTA/NSPS LAND TITLE SURVEY

**LOTS 1, 2, 3, 4, 5, AND 6, BLOCK 127, SOUTHERN ADDITION, AN ADDITION TO THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS ACCORDING TO THE MAP OR PLAT THEREOF OF RECORD IN VOLUME 2, PAGE 2, DEED RECORDS OF MIDLAND COUNTY, TEXAS SAVE AND EXCEPT A 2605.41 SQ. FT. TRACT CONVEYED TO THE CITY OF MIDLAND, TEXAS AS DESCRIBED IN AND CONVEYED BY A DEED OF RECORD IN VOLUME 971, PAGE 467, DEED RECORDS, MIDLAND COUNTY, TEXAS**

Outer Boundary being further described by metes and bounds as follows:

BEGINNING at (N= 10,693,039.84' E=1,760,217.02') a 1/2" iron rod found and accepted as the Southeast of said Lot 6, Block 127, and this tract at the Northwest corner of the intersection of S. Atlanta Street and E. Washington Avenue;

THENCE S89°34'19"W with the North line of E. Washington Avenue and the South line of said Lot 6, a distance of 140.00 feet to a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the Southwest corner of said Lot 6 and this tract, from whence a 1/2" iron rod found at the Southeast corner of Lot 6, Block 128, said Addition bears S89°34'19"W a distance of 239.71 feet, also from said Southwest corner a 1/2" iron rod by others erroneously set bears N00°33'W, a distance of 1.1 feet;

THENCE N0°10'05"W with the West line of Lots 4–6 of said Block 127 and the East line of a 20 foot wide alley, at distance of 150.00 feet to a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the common West corner of said Lots 3 and 4, from whence a 1/2" iron rod found as set by others erroneously bears N01°06'E a distance of 1.1 feet;

THENCE N0°10'05"W continuing with the West line of Lots 1–3 of said Block 127 and said alley, a distance of 150.00 feet to a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the Northwest corner of said Lot 1 and this tract, from whence a 1/2" iron rod erroneously set by others bears N08°35'W a distance of 1.2 feet;

THENCE N89°34'19"E with the North line of said Lot 1 and the South line of E Kentucky Avenue, a distance of 102.51 feet to a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the Northeast corner of this tract, from whence a 1/2" iron rod erroneously set by others bears N87°31'E, a distance of 11.14 feet;

THENCE S14°43'12"E with the West line of S. Lamesa Road as described in Volume 971, Page 467, Deed Records of Midland County, a distance of 149.24 feet to a 1/2" iron rod with a plastic cap marked "PLS 1974" set at the South corner of deed described in said Volume 971, and an exterior corner of this tract, from whence the Southeast corner of Lot 3, bears S0°46'24"E, a distance of 5.38 feet as called for in said Deed, also a 1/2" iron rod erroneously set by others bears N0°17'41"W, a distance of 34.5 feet;

THENCE S0°10'05"E with the West line of said S. Atlanta Street and the East line of part of Lot 3 and all of Lots 4–6, said Block 127, at 5.50 feet pass a 1/2" iron rod found at or near the Northeast corner of said Lot 4, at 105.38 feet pass a 1/2" iron rod found at the Northeast corner of Lot 5 continuing for a total distance of 155.38 feet to the Place of Beginning, containing an area of 39,290 square feet or 0.902 Acres of Land.

## GENERAL NOTES

1) Based on the U.S. Department of Housing and Urban Development, Federal Insurance Administration Flood Hazard Boundary Map, Community Number 480477, Sheet Number 48329C0202 F, revised September 16, 2005, the surveyed property is not located in a special flood hazard area according to the map. The flood zone classification for the surveyed property is Zone X.

2) Subject property consist of 39290 square feet or 0.902 acres of land.

3) The subject property has direct access to S. Lamesa Road, E. Washington Avenue and E. Kentucky Avenue, all dedicated public streets.

4) Except as shown, all visible utilities serving the subject property enter through adjoining public street and/or easements of record.

5) There is no visible evidence of recent earth moving work, building construction, or building additions that was observed on the subject property in the process of conduction the field work.

6) There are no proposed changes in street right-of-way lines and no visible evidence of recent street or sidewalk construction or repairs that was observed on the subject property in the process of conduction the field work.

7) Bearings, distances, and coordinates are relative to the Texas State Plane Coordinate System, NAD 1983/86, Central Zone, with a combine grid factor of 0.999903130, and a theta angle equal to −0°56'58.283" at station "158 LAMESA" with published values of Y= 10,691,430.83 and X= 1,760,806.01 in U.S. Survey Feet and an Elevation of 2769.91'.

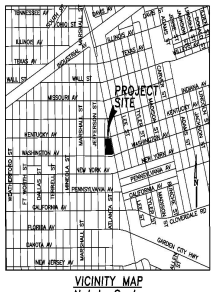
8) TBM being a 1/2" iron rod found at Southeast corner of subject property with values of N=10,693,039.84', E=1,760,217.05' and an elevation of 2770.89'. Elevations are relative to 1988 NAVD.

## EXCEPTIONS LISTED IN SCHEDULE B OF TITLE COMMITMENT NO. 1983462 ISSUED BY STEWART TITLE GUARANTY COMPANY ON APRIL 24, 2023 WITH AN EFFECTIVE DATE OF MARCH 16, 2023

1) There are no exceptions in title commitment that affect subject property which is a land surveying matter.

## LEGEND

- ○ = Set 1/2" Iron Rod with Plastic Cap marked "PLS 1974"
- ⓪ = Found 1/2" Iron Rod Unless Noted Otherwise
- FH = Fire Hydrant
- G = Gas Meter
- G = Gas Riser
- = Guy Wire
- LP = Light Pole
- PP = Power Pole
- MH = Sewer Manhole
- = Traffic Sign
- = Utility Sign
- = Tree
- WV = Water Valve
- 48.35+ = Elevation Shot
- 48.35T+ = Elevation Shot on Top of Curb
- 48.35G+ = Elevation Shot on Gutter
- 48.35FL+ = Elevation Shot on Sewer Flowline
- 48.35R+ = Elevation Shot on Manhole Ring
- FO = Fiber Optic Pedestal




VICINITY MAP
Not to Scale

## SURVEYOR'S CERTIFICATE

To: Maria Luisa Amparan; Guadalupe Amparan; G2K Development Partners; Stewart Title Guaranty Company:

This is to certify that this map or plat and survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 5, 6, 7a, 8, 9, 10, 11b, 13, 16, 17, 18 and 19 of Table A thereof. The field work was completed on July 6, 2023.

**"PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT."**

Date: July 17, 2023

PACKET

Drawing File: BerryEngr ALTASouthernAddnFD.Dwg
Crd File: Southern83c88.Crd
Drawn by: Gene M. Rodriguez
Scale: 1"=30'
Date: 7/16/23


PIPE SURVEYING
P.O. Box 60432, Midland, Texas 79711
(432)550-7810, Fax (432)550-0312
Firm No. 10155200


November 14, 2023

Prepared for:
Berry Engineering
63 Broad St. NW
Cleveland, TN 37311









# City Council Meeting

**Item Number:** 33

**Meeting Date:** October 24, 2023, November 14, 2023

**To:** City Council / City Manager

**From:** Landon Ochoa, Senior Planner

**Subject:** **AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 2, BLOCK 3, MELODY ACRES, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF TANFORAN AVENUE, APPROXIMATELY 200 FEET EAST OF ORIOLE DRIVE), BY PERMITTING A REDUCED MINIMUM LOT AREA; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION (DISTRICT 4) (DEVELOPMENT SERVICES) (DEFERRED FROM SEPTEMBER 26, 2023)**

---

**Purpose:**

The applicant, Shane Huffman, is requesting a Special Exception from the City of Midland Zoning Ordinance, *Section 5.04 - Residential District Dimensional Regulations Chart,* to allow the creation of two lots with the west lot being a minimum 1.69 acres instead of the required 2.0 acre minimum in the AE, Agricultural Estate District.

**Recommended City Council Action:**

Deny

**Fiscal Impact:**

No City funds are required to process this request.

**Discussion:**

The AE, Agricultural Estate District requires a minimum lot area of 2 acres (87,120 square feet).

An exception is required because the proposed west lot will be less than the required acreage.

This request has been circulated to all pertinent City departments for review. Below are the departments' comments.

**Fire: (Approved)**

No objections.

**Building: (Approved)**

No issues. All future structures must adhere to the 2018 International Building Codes, the 2015 International Energy Code, the 2020 NEC requirements, the 2015 International Fire Codes, local city ordinances, zoning requirements, established setbacks, oil and gas considerations, and floodplain requirements if necessary. Code versions are subject to change depending on time of new code edition adoption in the City of Midland and date of permit application.

**Engineering: (Approved)**

No objections. [For the Applicant's information only.]

**Code Compliance: (Approved)**

No Oil and Gas issues.

**Transportation: (Approved)**

No objections. [For the Applicant's information only.]

**Planning (Denied):**

The properties along Tanforan Avenue were annexed into the city in 1980 and the subject property was platted as one 3.7-acre lot in 1987 as part of Melody Acres, Fourth Section in compliance with the AE, Agricultural Estate Zoning District minimum 2.0-acre lot area requirement. The adjacent lot to the east which contains a single-family home is 2.0 acres in size, also in compliance. There is no hardship for the proposed request, as the lots were legally platted with the minimum lot sizes. The AE, Agricultural Estate District is intended for a minimum of 2.0-acre sized lots.

This request was approved in its first reading at the September 12, 2023 City Council meeting and deferred at the September 26, 2023 City Council meeting in its second reading.

Staff is recommending denial of this special exception, however, should it be approved, staff recommends that it be subject to conditions A and B.

**Condition:**

A. **The east lot shall have an area of 2.00 acres as shown in Exhibit "A", which is attached hereto and incorporated herein for all purposes; and**

B. **The west lot shall have an area that is equal to the remainder of the area of the Property (approximately 1.69 acres) as shown in Exhibit "A".**

**Letters of Objection:**

Staff has received four letters of objection as of October 13, 2023.

**Attachments:**

Proposed Plat (Exhibit A)
Metes & Bounds (Exhibit B)
Application
Maps
Objection Letters

City Manager's Office

**ORDINANCE NO. _____**

**AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 2, BLOCK 3, MELODY ACRES, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF TANFORAN AVENUE, APPROXIMATELY 200 FEET EAST OF ORIOLE DRIVE), BY PERMITTING A REDUCED MINIMUM LOT AREA; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION**

**WHEREAS**, the City Council modified the authority of the Board of Adjustment in Title XI, Chapter 1, Section 7 ("Section 11-1-7") of the Midland City Code; and

**WHEREAS,** Section 11-1-7 provides for the consideration of requests for special exceptions to the Midland Zoning Ordinance; and

**WHEREAS,** the Council finds that satisfactory evidence has been presented that the use to be authorized by the granting of the special exception will not be detrimental to the health, safety, comfort and welfare of the occupants of the land area near the tract on which the use to be allowed by special exception will be located; and

**WHEREAS,** the Council finds that it is clearly and specifically authorized by the terms of Section 11-1-7 to grant such a special exception, and said exception will be in harmony with the general purposes and intent of the zoning provisions of the Midland City Code; and

**WHEREAS**, after a full and fair public hearing at which all parties in interest were offered an opportunity to be heard, all pursuant to law, the Council finds it to be in the public interest to grant a special exception to the Zoning Ordinance, pursuant to Section 11-1-7, for the purposes herein stated, subject to special conditions;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That a special exception is hereby granted for the property described as Lot 2, Block 3, Melody Acres, Section 4, City and County of Midland, Texas (the "Property"). Said special exception shall allow a reduced minimum lot area.

**SECTION TWO.** Said special exception is subject to the following special conditions:

That the Property shall not be subdivided unless the Property is subdivided into two lots as follows:

A. The east lot shall have an area of 2.00 acres as shown in Exhibit "A", which is attached hereto and incorporated herein for all purposes; and

B. The west lot shall have an area that is equal to the remainder of the area of the Property (approximately 1.69 acres) as shown in Exhibit "A".

**SECTION THREE.** The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION FOUR.** If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION FIVE.** The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION SIX.** The City Secretary is hereby authorized and directed to file this ordinance with the Office of the County Clerk for purposes of recordation.

**SECTION SEVEN.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2023; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2023, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Cristina Burns, Director of Development Services

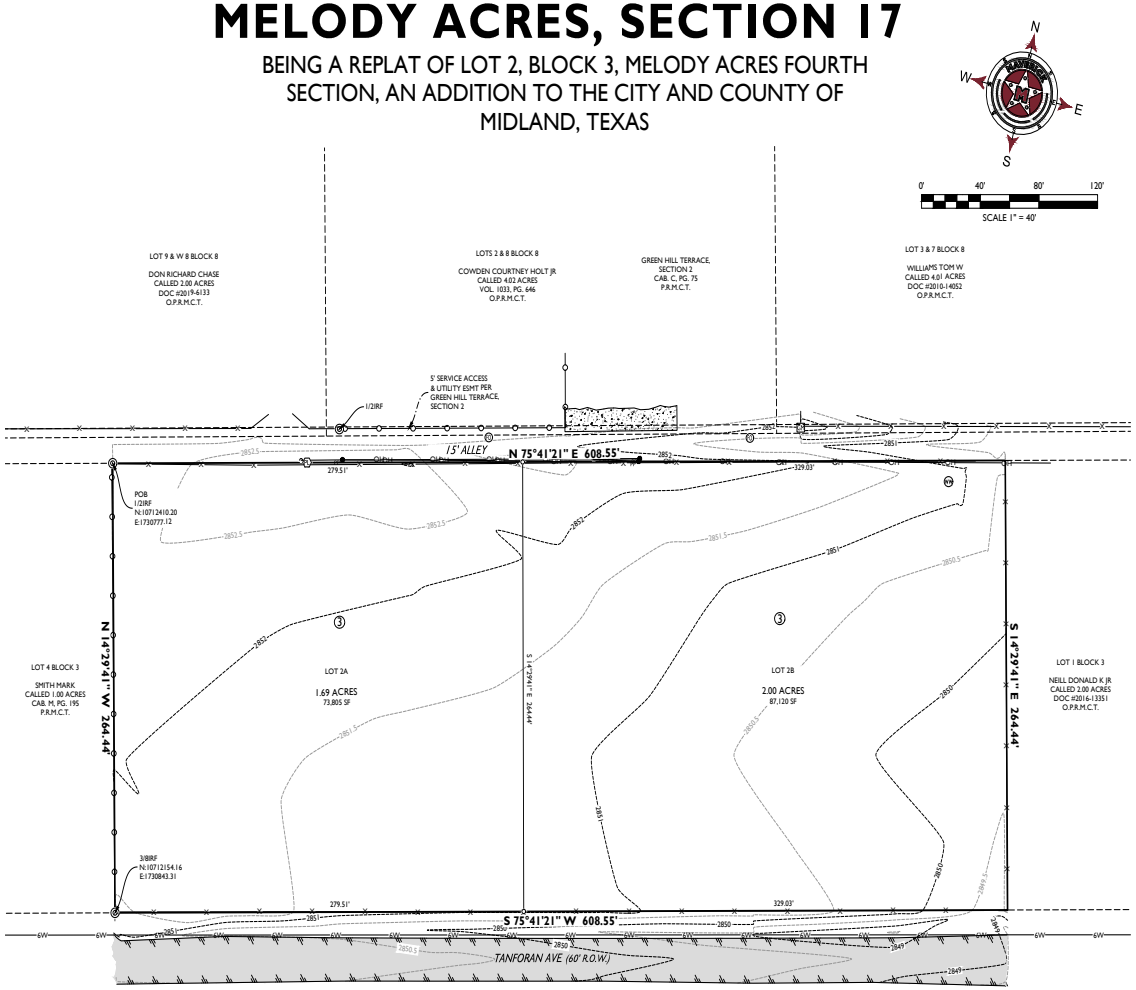
APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

EXHIBIT "A"

# MELODY ACRES, SECTION 17

BEING A REPLAT OF LOT 2, BLOCK 3, MELODY ACRES FOURTH SECTION, AN ADDITION TO THE CITY AND COUNTY OF MIDLAND, TEXAS




*OWNER'S CERTIFICATE*

THE STATE OF TEXAS
COUNTY OF MIDLAND
WHEREAS SHANE LANCE HUFFMAN, IS THE RECORD OWNER OF A TRACT OF LAND SITUATED IN SECTION 17, BLOCK 3, T-1-S, T&P. RR. CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS.

*NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:*

*THAT SHANE LANCE HUFFMAN, BEING THE OWNER OF THE LAND SHOWN ON THIS PLAT DESIGNATED AS MELODY ACRES, SECTION 17, AN ADDITION TO THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND WHOSE NAME IS SUBSCRIBED HERETO, DO HEREBY DEDICATE TO THE PUBLIC USE FOREVER THE STREETS, ALLEYS, AND EASEMENTS SHOWN THEREON; AND DO HEREBY GIVE AN EASEMENT OF INGRESS AND EGRESS TO THE CITY OF MIDLAND FOR GARBAGE COLLECTION, UTILITY FACILITY ACCESS AND MAINTENANCE, LOCATION AND MAINTENANCE OF TRASH CONTAINERS AND ACCESS THERETO; AND CONDITION SAID EASEMENT THAT NO CONSTRUCTION SHALL COMMENCE ON SAID LOT OR LOTS UNTIL THE EXACT LOCATION OF SAID CONTAINERS THEREWITH HAS BEEN SELECTED AND APPROVED BY THE DIRECTOR OF UTILITIES.*

*WITNESS MY HAND AT _____ - ___M.*

*THE_____DAY OF _____ 2023.*

*BY: SHANE LANCE HUFFMAN, OWNER*

*ACKNOWLEDGEMENT*

THE STATE OF TEXAS
COUNTY OF MIDLAND
*BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS, ON THIS DAY PERSONALLY APPEARED _____ KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE WAS ACTING AS OWNER, AND THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED, AND IN THE CAPACITY THEREIN STATED. GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS*

*THE _____ DAY OF _____ 2023.*

*NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS*

*CERTIFICATE OF APPROVAL*

*THIS IS TO CERTIFY THAT THE ABOVE AND FOREGOING PLAT OF MELODY ACRES, SECTION 17, WAS APPROVED BY PROPER ACTION OF THE CITY PLANNING AND ZONING COMMISSION OF THE CITY OF MIDLAND, TEXAS ON THIS*

*_____DAY OF_____ 2023.*

*LUCY SISNIEGA, CHAIRMAN*

*JEFFREY FISHER, SECRETARY*

*DEVELOPMENT NOTES*

1. *SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS MAY BE A VIOLATION OF CITY ORDINANCE AND STATE LAW AND SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.*
2. *APPROVAL OF A SITE PLAN BY THE CITY OF MIDLAND MAY BE REQUIRED BEFORE THE DEVELOPMENT OF ANY LOT AND BEFORE A BUILDING PERMIT MAY BE OBTAINED.*
3. *THE INSTALLATION OF IMPROVEMENTS MAY BE REQUIRED BY THE CITY OF MIDLAND AS SUCH TIME AS:*
   *(1) THE REPRESENTED LOT IS REPLATTED FOR SUBDIVISION INTO MORE THAN ONE LOT OR :*
   *(2) THE PROPERTY IS REZONED FOR A MORE INTENSIVE USE.*
4. *IMPACT FEES WILL BE ASSESSED DURING THE FINAL PLATTING PROCESS, IMPLEMENTATION AND COLLECTION OF IMPACT FEES WILL TAKE PLACE DURING THE BUILDING PERMIT PROCESS. ADDITIONAL IMPACT FEES OR INCREASES IN FEES MAY NOT BE ASSESSED AGAINST THE TRACT UNLESS THE NUMBER OF SERVICE UNITS TO BE DEVELOPED ON THE TRACT INCREASED.*

*SURVEY NOTES:*

1. *BASIS OF BEARING, COORDINATES, DISTANCE AND ACREAGE ARE A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, CENTRAL ZONE, NAD 83, U.S. SURVEY FOOT WITH A CONVERGENCE ANGLE (theta) OF -0°54'48.40" AND A COMBINED SCALE FACTOR OF 0.99989691 I AT NO: "MIDLAND".*
2. *1/2" IRON ROD WITH RED PLASTIC CAP MARKED "MAVERICK FIRM # 10194514" AT ALL SET CORNERS, UNLESS OTHERWISE SPECIFIED.*
3. *SEE DOCUMENTS OR ELECTRONIC DATA FILED IN THE OFFICE OF MAVERICK ENGINEERING FOR COMPLETE RECONSTRUCTION OF THIS SURVEY.*
4. *LOCATION OF BURIED UTILITIES AND PIPELINES, IF ANY, IS APPROXIMATE BASED UPON OBSERVED EXISTING SIGNAGE, CITY OF MIDLAND GIS AND VISUAL EVIDENCE, OR BY ONE-CALL 811 SITE MARKINGS AT THE TIME OF THIS SURVEY. DUE CARE IS RECOMMENDED. CALL 1-800-DIG-TESS FOR LOCATES PRIOR TO ANY CONSTRUCTION OR EXCAVATION.*
5. *THIS IS A PROVISIONAL SKETCH PLAT, THIS IS NOT TO BE RECORDED OR USED FOR CONSTRUCTION PURPOSES. SET MONUMENTS SHOWN HEREON ARE ALSO PRELIMINARY AND SHALL ONLY BE PLACED IN ACCORDANCE WITH A FINAL SURVEY SEALED BY THE SURVEYOR OF RECORD.*

*FEMA NOTE*

*FLOOD STATEMENT: ACCORDING TO FEMA'S N.F.I.P. FLOOD INSURANCE RATE MAP #48329C0066F, DATED SEPTEMBER 26, 2008, THIS PROPERTY IS WITHIN THE UNSHADED PORTION OF ZONE "X", DESIGNATED AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN."*

*THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. ON RARE OCCASIONS, GREATER FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE OR NATURAL CAUSES. THIS STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF MAVERICK CIVIL & SURVEY, LLC.*

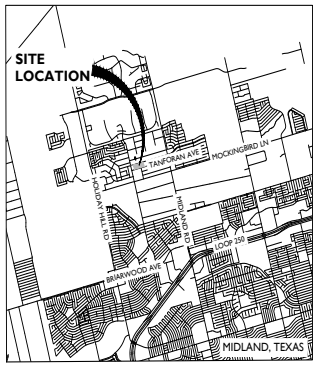
*SURVEYOR'S CERTIFICATE*

*KNOW ALL MEN BY THESE PRESENTS:*

*THAT I, GREGORY W. SHOULTS, A REGISTERED [illegible] AND OWNER OF THE TEXAS [illegible] DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM AN ACTUAL AND ACCURATE SURVEY OF THE LAND AND THAT THE CORNER [illegible] THEREON WERE [illegible] UNDER MY PERSONAL SUPERVISION, IN ACCORDANCE WITH THE SUBDIVISION [illegible] OF MIDLAND, TEXAS.*

GREGORY W. SHOULTS, R.P.L.S.
MAVERICK ENGINEERING / LAND SURVEYING
1909 W. WALL STREET, SUITE "K"
MIDLAND, TX 79701

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE




**VICINITY MAP**

**N.T.S.**

*UTILITY COMPANY'S CERTIFICATE*

*THIS PLAT HAS BEEN CHECKED FOR ACCESSIBILITY OF UTILITIES.*

*ATMOS ENERGY*
*BY:* _____

*AT&T*
*BY:* _____

*OPTIMUM*
*BY:* _____

*ASTOUND BROADBAND*
*BY:* _____

*ONCOR ELECTRIC DELIVERY*
*BY:* _____

**LEGEND**

| | |
|---|---|
| ◎ | FOUND CORNER |
| FO | FIBER OPTIC BOX |
| GM | GAS METER |
| ^ | GUY ANCHOR |
| PM | PIPELINE MARKER |
| PP | POWER POLE |
| WW | WATER WELL |
| | BOUNDARY LINE |
| | PROPERTY LINES |
| | EDGE OF ASPHALT |
| -X- | FENCE |
| -O-O- | CHAINLINK FENCE |
| OH | OVERHEAD ELECTRIC LINE |
| 6W | 6" WATER MAIN |
| | CONCRETE |
| | PAVEMENT |
| O.P.R.M.C.T. | OFFICIAL PUBLIC RECORDS, MIDLAND CO., TX |
| P.R.M.C.T. | PLAT RECORDS, MIDLAND CO., TX |


MAVERICK
CIVIL ENGINEERING / LAND SURVEYING
1909 West Wall Street, Suite "K"
Midland, Texas 79701
ENGINEER FIRM #: F-15089
SURVEY FIRM #: 10194514
Tel: (432) 262-0999 Fax: (432) 262-0989
www.Maverick-Eng.com


PACKET 33.8

*PLAT FILED FOR RECORD IN MIDLAND COUNTY, TEXAS*

*NO.* _____

*DATE* _____

*PROPERTY OWNER*
*SHANE LANCE HUFFMAN*
*4416 TANFORAN AVE*
*MIDLAND, TEXAS - 79707*
*DEED INSTRUMENT #2016-3066*

November 14, 2023

**MELODY ACRES SECTION 17**

Drawing: P:\2023\230133-SHANE HUFFMAN-MELODY ACRES EXCEPTION & RE-PLAT\DRAWINGS\PLAT\230132 - SKETCH PLAT.DWG Last Saved By: BKing on 9/28/23

MIDLAND
Planning Division

**Special Exception Application**

Project Number: _____

Case Number: E.23.0103

| **Applicant** *(if acting as Agent, see affidavit on page 2)* Printed Name: See Owner | | Phone ( ) Email | |
|---|---|---|---|
| Address | City | State | Zip |

| **Property Owner** Printed Name: Shane Huffman | | Phone ( ) Email | |
|---|---|---|---|
| Address 4709 Woodbar Court | City Midland | State TX | Zip 79707 |

| **Representative** *(if different from Applicant or Property Owner)* Firm: Maverick Engineering Printed Name: Andrew Mellen | | Phone ( 432 ) 262-0999 Email amellen@maverick-eng.com | |
|---|---|---|---|
| Address 1909 W Wall St Ste K | City Midland | State TX | Zip 79701 |

**Street Address:** 4416 Tanforan Avenue, Midland, TX

**Legal Description**
Lot: 2 Block: 3 Subdivision: Melody Acres, Section 4 (also see attached Metes & Bounds)

**Current Zoning:** AE Agricultural Estates

**This property qualifies as an exception to the City Code because:**

- ☒ It is an expansion of a nonconforming use.
- ☐ There are existing nonconforming structures in the area.
- ☐ The addition of architectural or other projections of a minor extent.

**Reason for Request:** Applicant is seeking to re-plat the existing Lot 2, (approximately 3.7 acres total) into two lots less than the 2-acre minimum required by existing zoning. Other area non-conforming lots exist within this subdivision.

**Submittal and Fees**

**Items to be submitted with this application form:**

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Site Plan showing:
  - Parking
  - Building Footprint
- Digital Copies of Site Plan (PDF/JPEG)

| Signatures | |
|---|---|
| Applicant (signature): | Date: |
| Applicant (printed): | |
| Property Owner (signature): Shane Hoffman | Date: 7/24/23 |
| Property Owner (printed): Shane Hoffman | |

*The Special Exception shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.*

If an agent is authorized by the property owner to file and execute the application on behalf of the property owner, the agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared Andrew L Mellen who, being by me duly sworn, upon oath says: That (s)he is authorized by Shane Hoffman, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

Andrew L Mellen Jr.
Authorized Agent (*signature*)

Subscribed and sworn to before me, this 24th day of July, 2023, to certify which witness my hand and seal of office.

Kelsey Ann Lewis
My Commission Expires
2/19/2026
Notary ID
131456388

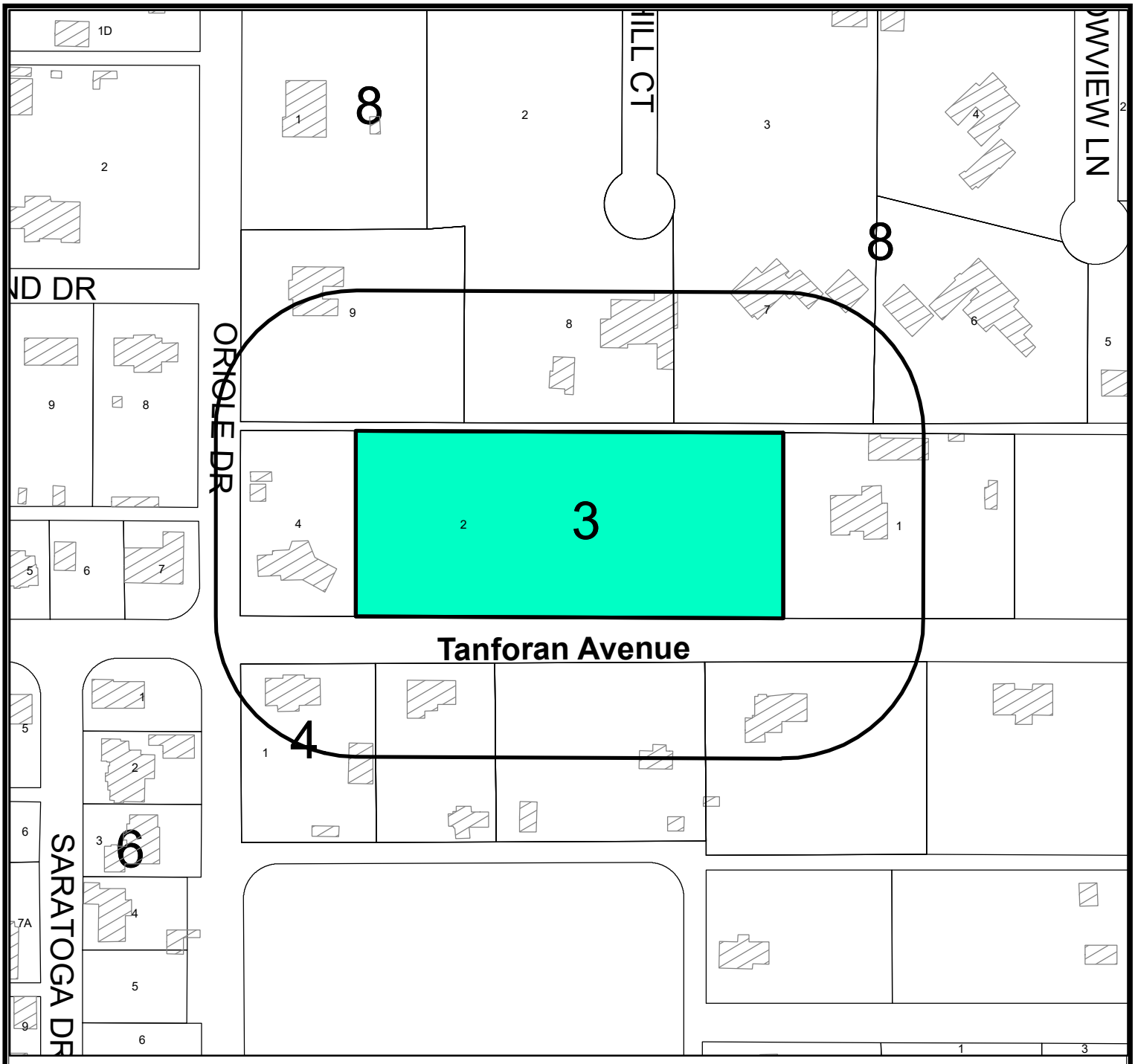
Kelsey Ann Lewis
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

**FOR OFFICE USE ONLY**

| | |
|---|---|
| ☑ Property Owner Authorization | ☑ Dimensioned Site Plan |
| ☑ Application Fee | ☑ Plans in Digital Format (PDF/JPEG) |
| Check # 4369 | |
| Received By: Landon Cross | Date: JUL 24 2023 |

BY: .....

**Application will not be considered for scheduling until reviewed by a planner.**




# LOCATION MAP

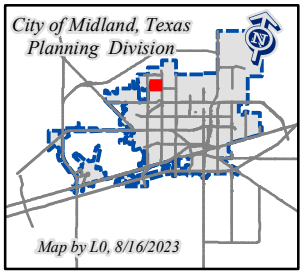
**E-23-0103** **Scale: 1" = 2,442'**

A request by Maverick Engineering for a Special Exception from the City of Midland Zoning Ordinance, Section 5.04 - Residential District Dimensional Regulations Chart, for a reduced minimum lot area on Lot 2, Block 3, Melody Acres, Section 4, City of and County of Midland, Texas.

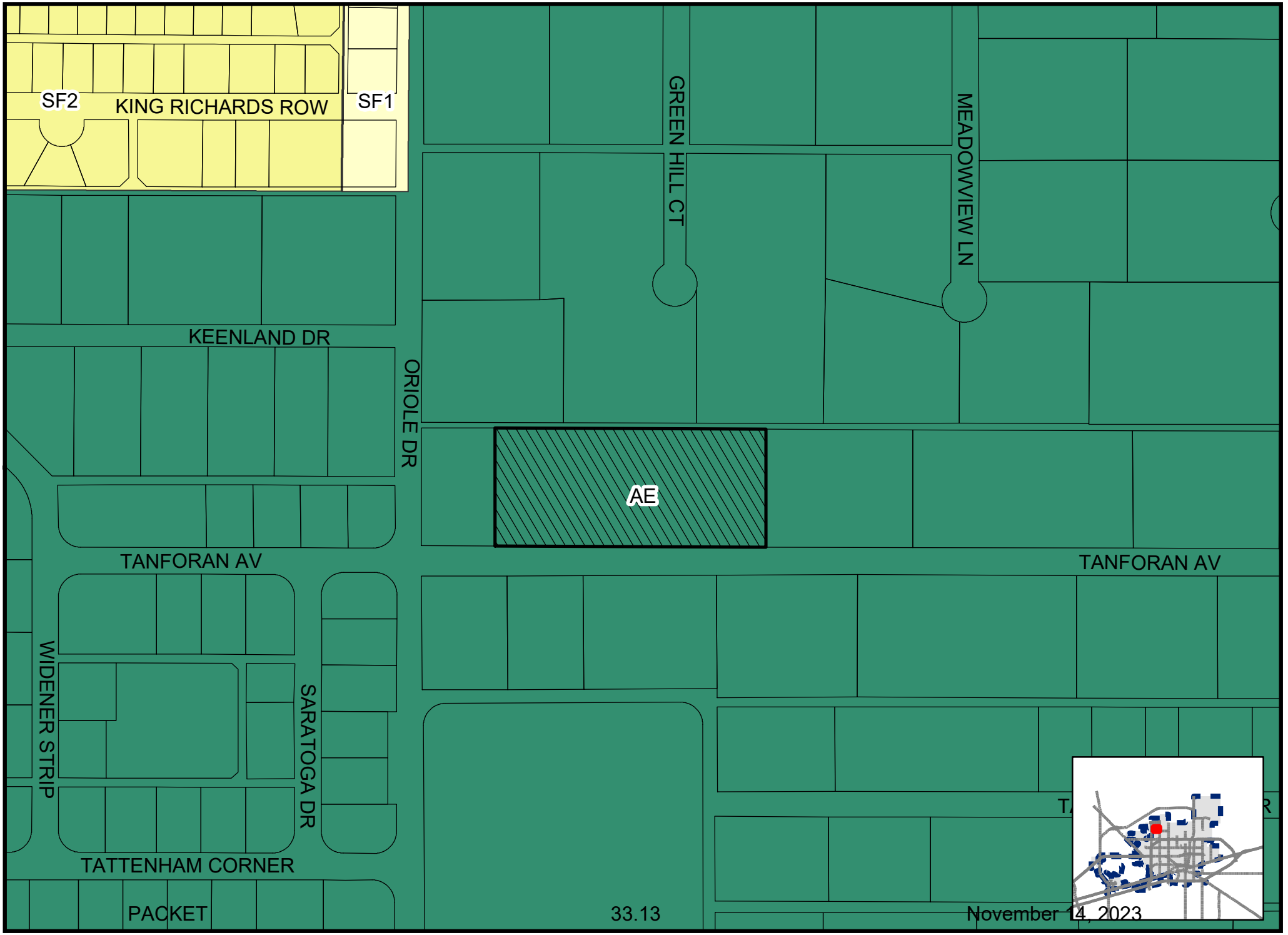
Genrally located on the north side of Tanforan Avenue approximately 200-feet east of Oriole Drive. (Council District 4)

**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




©THE CITY OF MIDLAND - 2021
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND IS NOT IT DESIGNED TO BE USED AS THE ONLY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.




*Map By LO, 8/30/2023*

**E-23-0103**

**Scale: 1" = 3,233'**

# ZONING MAP

© THE CITY OF MIDLAND - 2021: THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT, NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN. THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.

MAVERICK
ENGINEERING • SURVEY • WATER RESOURCES
1909 West Wall Street, Suite K • Midland, TX 79701
Tel: 432.262.0999 • Fax: 432.262.0989 • maverick-eng.com
ENGINEER FIRM #: F-15089 | SURVEY FIRM #:10194514

**STATE OF TEXAS** §

**COUNTY OF MIDLAND** §

## FIELD NOTE DESCRIPTION OF LOT 2, BLOCK 3, FOURTH SECTION, MELODY ACRES

**FIELD NOTE DESCRIPTION OF A 3.69 ACRE TRACT OF LAND, BEING LOT 2, BLOCK 3, MELODY ACRES, FOURTH SECTION (SECTION 4), AN ADDITION TO THE CITY AND COUNTY OF MIDLAND , TEXAS, AS SHOWN ON A PLAT RECORDED AS DOCUMENT NUMBER 7257 IN PLAT CABINET D ON PAGE 387 OF THE PLAT RECORDS OF SAID MIDLAND COUNTY, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS;**

**BEGINNING** AT N.(y):10712410.20, E.(x):1730777.12, A ONE HALF INCH IRON ROD FOUND AND ACCEPTED AS BEING THE NORTHEAST CORNER OF LOT 4, BLOCK 3, MELODY ACRES, SECTION 16, AS SHOWN ON A PLAT RECORDED AS DOCUMENT NUMBER 2023-5355, IN PLAT CABINET M ON PAGE 195 OF SAID PLAT RECORDS FOR THE NORTHWEST CORNER HEREOF;

**THENCE** N.75°41'21"E., ALONG THE SOUTH LINE OF A CALLED 15 FOOT ALLEY, 608.55 FEET TO A POINT WITHIN A FENCE CORNER, BEING THE NORTHWEST CORNER OF LOT 1 OF THIS BLOCK FOR THE NORTHEAST CORNER HEREOF;

**THENCE** S.14°29'41"E., ALONG THE WEST LINE OF SAID LOT 1, 264.44 FEET TO A POINT WITHIN A FENCE CORNER, BEING ON THE NORTH RIGHT-OF-WAY LINE OF TANFORAN AVENUE, AS RECORDED IN VOLUME 469 ON PAGE 269 OF THE DEED RECORDS OF SAID MIDLAND COUNTY FOR THE SOUTHEAST CORNER HEREOF;

**THENCE** S.75°41'21"W., ALONG SAID TANFORAN AVENUE, 608.55 FEET TO A THREE EIGHTHS INCH IRON ROD FOUND AND ACCEPTED AS THE SOUTHEAST CORNER OF SAID LOT 4 FOR THE SOUTHWEST CORNER HEREOF;

**THENCE** N.14°29'41"W., ALONG THE EAST LINE OF SAID LOT 4, 264.44 FEET TO THE **POINT OF BEGINNING**, CONTAINING 160925 SQUARE FEET OR 3.69 ACRES OF LAND.

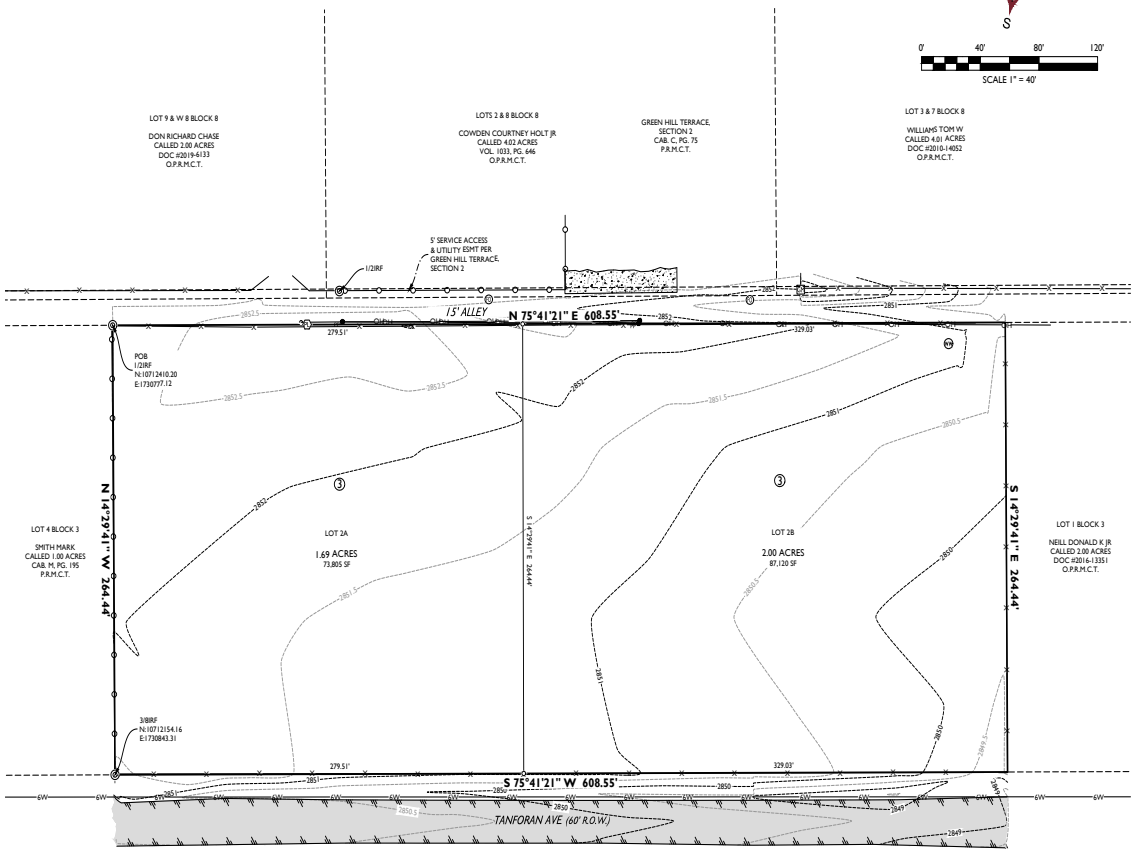
August 1, 2023




Gregory W. Shoults
www.maverick-eng.com
Texas RPLS - No. 5356
Maverick Engineering (FIRM – No. 10194514)

# MELODY ACRES, SECTION 17

BEING A REPLAT OF LOT 2, BLOCK 3, MELODY ACRES FOURTH SECTION, AN ADDITION TO THE CITY AND COUNTY OF MIDLAND, TEXAS







0' 40' 80' 120'

SCALE 1" = 40'

*OWNER'S CERTIFICATE*

THE STATE OF TEXAS
COUNTY OF MIDLAND
WHEREAS SHANE LANCE HUFFMAN, IS THE RECORD OWNER OF A TRACT OF LAND SITUATED IN SECTION 17, BLOCK 3, T-1-S, T&P. RR. CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS.

*NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:*

*THAT SHANE LANCE HUFFMAN, BEING THE OWNER OF THE LAND SHOWN ON THIS PLAT DESIGNATED AS MELODY ACRES, SECTION 17, AN ADDITION TO THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND WHOSE NAME IS SUBSCRIBED HERETO, DO HEREBY DEDICATE TO THE PUBLIC USE FOREVER THE STREETS, ALLEYS, AND EASEMENTS SHOWN THEREON; AND DO HEREBY GIVE AN EASEMENT OF INGRESS AND EGRESS TO THE CITY OF MIDLAND FOR GARBAGE COLLECTION, UTILITY FACILITY ACCESS AND MAINTENANCE, LOCATION AND MAINTENANCE OF TRASH CONTAINERS AND ACCESS THERETO; AND CONDITION SAID EASEMENT THAT NO CONSTRUCTION SHALL COMMENCE ON SAID LOT OR LOTS UNTIL THE EXACT LOCATION OF SAID CONTAINERS THEREWITH HAS BEEN SELECTED AND APPROVED BY THE DIRECTOR OF UTILITIES.*

*WITNESS MY HAND AT _____ - ___M.*

*THE_____DAY OF _____ 2023.*

*BY: SHANE LANCE HUFFMAN, OWNER*

*ACKNOWLEDGEMENT*

THE STATE OF TEXAS
COUNTY OF MIDLAND
*BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS, ON THIS DAY PERSONALLY APPEARED _____ KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE WAS ACTING AS OWNER, AND THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED, AND IN THE CAPACITY THEREIN STATED. GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS*

*THE _____ DAY OF _____ 2023.*

*NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS*

*CERTIFICATE OF APPROVAL*

*THIS IS TO CERTIFY THAT THE ABOVE AND FOREGOING PLAT OF MELODY ACRES, SECTION 17, WAS APPROVED BY PROPER ACTION OF THE CITY PLANNING AND ZONING COMMISSION OF THE CITY OF MIDLAND, TEXAS ON THIS*

_____DAY OF_____ 2023.

*LUCY SISNIEGA, CHAIRMAN*

*JEFFREY FISHER, SECRETARY*

*DEVELOPMENT NOTES*

1. *SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS MAY BE A VIOLATION OF CITY ORDINANCE AND STATE LAW AND SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.*
2. *APPROVAL OF A SITE PLAN BY THE CITY OF MIDLAND MAY BE REQUIRED BEFORE THE DEVELOPMENT OF ANY LOT AND BEFORE A BUILDING PERMIT MAY BE OBTAINED.*
3. *THE INSTALLATION OF IMPROVEMENTS MAY BE REQUIRED BY THE CITY OF MIDLAND AS SUCH TIME AS:*
   *(1) THE REPRESENTED LOT IS REPLATTED FOR SUBDIVISION INTO MORE THAN ONE LOT OR :*
   *(2) THE PROPERTY IS REZONED FOR A MORE INTENSIVE USE.*
4. *IMPACT FEES WILL BE ASSESSED DURING THE FINAL PLATTING PROCESS, IMPLEMENTATION AND COLLECTION OF IMPACT FEES WILL TAKE PLACE DURING THE BUILDING PERMIT PROCESS. ADDITIONAL IMPACT FEES OR INCREASES IN FEES MAY NOT BE ASSESSED AGAINST THE TRACT UNLESS THE NUMBER OF SERVICE UNITS TO BE DEVELOPED ON THE TRACT INCREASED.*

*SURVEY NOTES:*

1. *BASIS OF BEARING, COORDINATES, DISTANCE AND ACREAGE ARE A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, CENTRAL ZONE, NAD 83, U.S. SURVEY FOOT WITH A CONVERGENCE ANGLE (theta) OF -0°54'48.40" AND A COMBINED SCALE FACTOR OF 0.99988691 I AT NO: "MIDLAND".*
2. *1/2" IRON ROD WITH RED PLASTIC CAP MARKED "MAVERICK FIRM # 10194514" AT ALL SET CORNERS, UNLESS OTHERWISE SPECIFIED.*
3. *SEE DOCUMENTS OR ELECTRONIC DATA FILED IN THE OFFICE OF MAVERICK ENGINEERING FOR COMPLETE RECONSTRUCTION OF THIS SURVEY.*
4. *LOCATION OF BURIED UTILITIES AND PIPELINES, IF ANY, IS APPROXIMATE BASED UPON OBSERVED EXISTING SIGNAGE, CITY OF MIDLAND GIS AND VISUAL EVIDENCE, OR BY ONE-CALL 811 SITE MARKINGS AT THE TIME OF THIS SURVEY. DUE CARE IS RECOMMENDED. CALL 1-800-DIG-TESS FOR LOCATES PRIOR TO ANY CONSTRUCTION OR EXCAVATION.*
5. *THIS IS A PROVISIONAL SKETCH PLAT, THIS IS NOT TO BE RECORDED OR USED FOR CONSTRUCTION PURPOSES. SET MONUMENTS SHOWN HEREON ARE ALSO PRELIMINARY AND SHALL ONLY BE PLACED IN ACCORDANCE WITH A FINAL SURVEY SEALED BY THE SURVEYOR OF RECORD.*

*FEMA NOTE*

*FLOOD STATEMENT: ACCORDING TO FEMA'S N.F.I.P. FLOOD INSURANCE RATE MAP #48329C0066F, DATED SEPTEMBER 26, 2008, THIS PROPERTY IS WITHIN THE UNSHADED PORTION OF ZONE "X", DESIGNATED AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN."*

*THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. ON RARE OCCASIONS, GREATER FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE OR NATURAL CAUSES. THIS STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF MAVERICK CIVIL & SURVEY, LLC.*

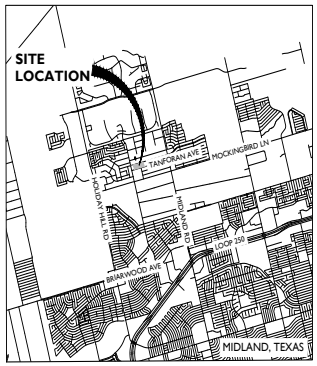
*SURVEYOR'S CERTIFICATE*

*KNOW ALL MEN BY THESE PRESENTS:*

*THAT I, GREGORY W. SHOULTS, A REGISTERED [illegible] AND SURVEYOR OF THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM AN ACTUAL AND ACCURATE SURVEY OF THE LAND AND THAT THE CORNER [illegible] THEREON WERE [illegible] BY ME OR UNDER MY PERSONAL SUPERVISION, IN ACCORDANCE WITH THE SUBDIVISION [illegible] OF THE CITY OF MIDLAND, TEXAS.*

GREGORY W. SHOULTS, R.P.L.S.
MAVERICK ENGINEERING / LAND SURVEYING
1909 W. WALL STREET, SUITE "K"
MIDLAND, TX 79701

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE




**VICINITY MAP**

**N.T.S.**

*UTILITY COMPANY'S CERTIFICATE*

*THIS PLAT HAS BEEN CHECKED FOR ACCESSIBILITY OF UTILITIES.*

*ATMOS ENERGY*
*BY:* _____

*AT&T*
*BY:* _____

*OPTIMUM*
*BY:* _____

*ASTOUND BROADBAND*
*BY:* _____

*ONCOR ELECTRIC DELIVERY*
*BY:* _____

**LEGEND**

| | |
|---|---|
| ◎ | FOUND CORNER |
| FO | FIBER OPTIC BOX |
| GM | GAS METER |
| ^ | GUY ANCHOR |
| PM | PIPELINE MARKER |
| PP | POWER POLE |
| WW | WATER WELL |
| | BOUNDARY LINE |
| | PROPERTY LINES |
| | EDGE OF ASPHALT |
| -X- | FENCE |
| -O-O- | CHAINLINK FENCE |
| OH | OVERHEAD ELECTRIC LINE |
| 6W | 6" WATER MAIN |
| | CONCRETE |
| | PAVEMENT |
| O.P.R.M.C.T. | OFFICIAL PUBLIC RECORDS, MIDLAND CO., TX |
| P.R.M.C.T. | PLAT RECORDS, MIDLAND CO., TX |


MAVERICK
CIVIL ENGINEERING / LAND SURVEYING

1909 West Wall Street, Suite "K"
Midland, Texas 79701
ENGINEER FIRM #: F-15089
SURVEY FIRM #: 10194514
Tel: (432) 262-0999 Fax: (432) 262-0989
www.Maverick-Eng.com


PACKET

*PLAT FILED FOR RECORD*
*MIDLAND COUNTY, TEXAS*

*NO.* _____

*DATE* _____

93.15

*PROPERTY OWNER*
*SHANE LANCE HUFFMAN*
*4416 TANFORAN AVE*
*MIDLAND, TEXAS - 79707*
*DEED INSTRUMENT #2016-3066*

November 14, 2023

**MELODY ACRES SECTION 17**

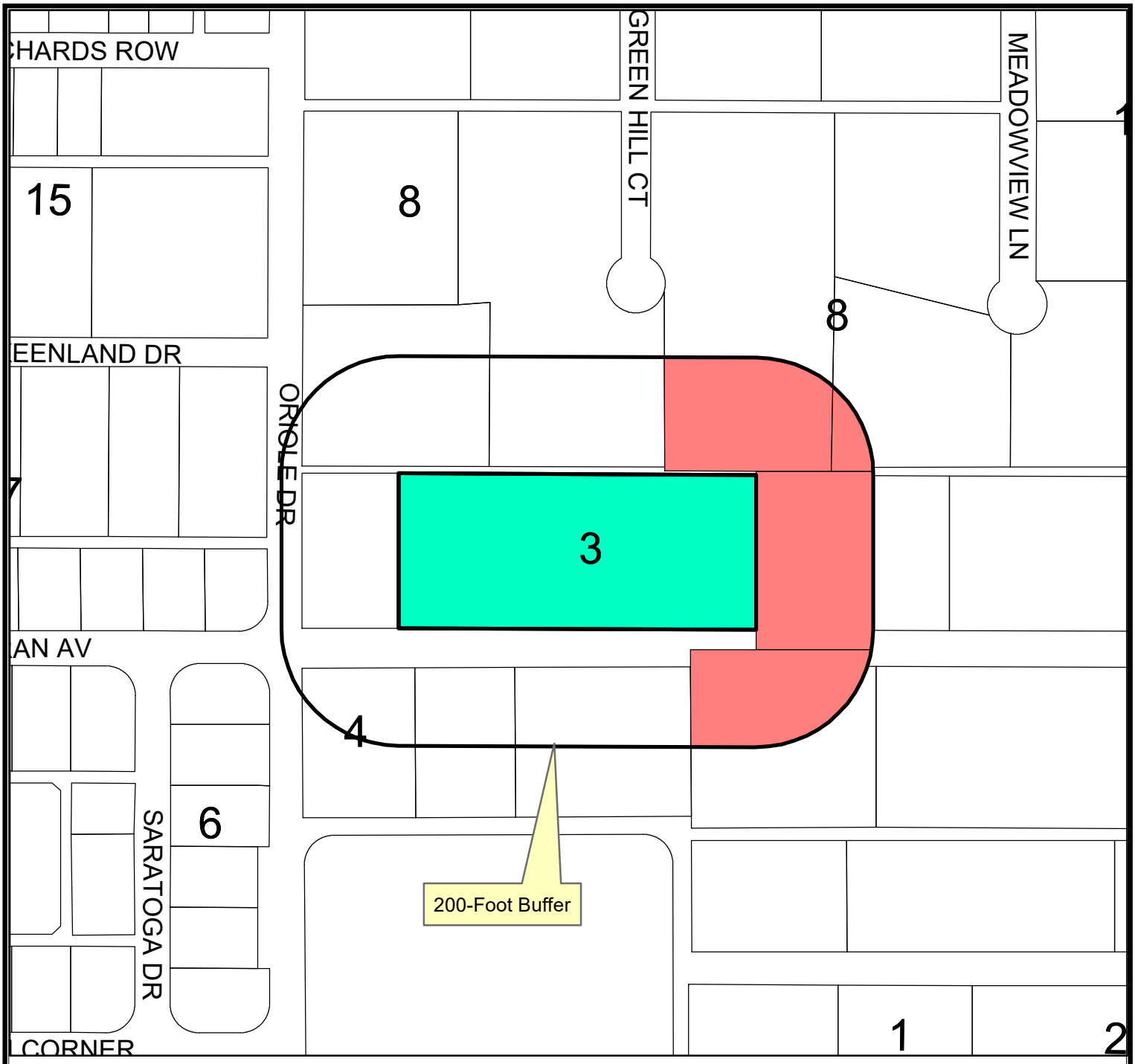
Drawing: P:\2023\23013\3-SHANE HUFFMAN-MELODY ACRES EXCEPTION & RE-PLAT\DRAWINGS\PLAT\23013 2 - SKETCH PLAT.DWG Last Saved By: BKing on 9/28/23












# 36.6% Objection

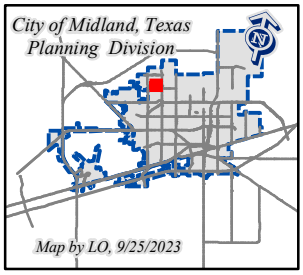
**E-23-0103** **Scale: 1" = 4,057'**

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Genrally located on the north side of Tanforan Avenue approximately 200-feet east of Oriole Drive. (Council District 4)

**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




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1

MIDLAND
Planning Division

NEILL DONALD K JR
4414 TANFORAN AV
MIDLAND TX 79707

**PUBLIC NOTICE**

SEP 20 2023

The **City Council** of the City of Midland, Texas will hold a public hearing at **10:00 a.m.** on **Tuesday, September 12, 2023,** in the Council Chambers, City Hall, 300 N. Loraine, Midland, Texas 79701, on a request by **Maverick Engineering** for approval of a **Special Exception to the City of Midland Zoning Ordinance, 5.04 – Residential Zoning District Dimensional Regulations Chart, for a reduced minimum lot area** on the following described property:

**LEGAL DESCRIPTION:** Lot 2, Block 3, Melody Acres, Section 4, City and County of Midland, Texas.

**LOCATION:** Generally located on the north side of Tanforan Avenue approximately 200-feet east of Oriole Drive. (Council District 4)

Not to be considered a part of the Public Notice: 1) See reverse side for location map; 2) In order to be considered as an official objection to this request a response **must be submitted by mail or delivered *in writing*** to the Planning Division at the address listed above. An official objection may be filed by completing this notice and returning it to the address listed above.

**I object to this request** YES **Comments:** _____

**Required Information:**

Don Neill
Property Owner's Signature

DON NEILL
Printed Name

4414 TANFORAN
Property Address (**No P. O. Boxes**)

If any further information is desired, please contact the Planning Division, at 685-7400.
Si ud. desea más información en Español sobre este caso, llame al : 685-7400.

Notices Mailed: 9
Date Mailed: 8/25/2023
Case Number: E-23-0103
Case Name: 4416 Tanforan Ave
LO Planner's Initials

*Jeff Fisher*

Jeff Fisher, AICP
Planning Division Manager
Department of Development Services

The meeting facility is accessible to disabled persons. A wheelchair entry ramp is located at the southeast entrance to City Hall. A parking space designated for use by disabled persons is available near the southeast entrance doors. Any disabled person needing special accommodations or hearing impaired persons wishing to have an interpreter should request services through the Administrative Services Department at least 48 hours prior to the scheduled meeting by contacting Compliance Coordinator for the City of Midland at (432) 685-7251. If communication via TDD is required, please call 1-800-735-2989.

MIDLAND
Planning Division

2

RECEIVED
SEP 25 2023

**PUBLIC NOTICE**

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**I object to this request** YES **Comments:** NEED DETAILS, FUTURE ZONING WHY? DE-SPACING? WHY CHANGE? NO.

**Required Information:**

[signature] | TOM W. WILLIAMS | 6610 GREEN HILL CT. MIDLAND, TX, 79707

Property Owner's Signature | Printed Name | Property Address (**No P. O. Boxes**)

If any further information is desired, please contact the Planning Division, at 685-7400.
Si ud. desea más información en Español sobre este caso, llame al : 685-7400.

DE-VALUATION, POTENTIAL LEGAL SUITS THAT WILL BE PURSUED.

Notices Mailed: 9
Date Mailed: 8/25/2023
Case Number: E-23-0103
Case Name: 4416 Tanforan Ave
LO Planner's Initials

*Jeff Fisher*

Jeff Fisher, AICP
Planning Division Manager
Department of Development Services

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MIDLAND
Planning Division

3

**PUBLIC NOTICE**

SEP 25 2023

BY

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**I object to this request** YES **Comments:** Concerned with Property devaluation and the road acess is terrible

**Required Information:**

Scott Breeding — Property Owner's Signature

Scott Breeding — Printed Name

4415 Tanforan Ave — Property Address (**No P. O. Boxes**)

If any further information is desired, please contact the Planning Division, at 685-7400.
Si ud. desea más información en Español sobre este caso, llame al : 685-7400.

Notices Mailed: 9
Date Mailed: 8/25/2023
Case Number: E-23-0103
Case Name: 4416 Tanforan Ave
LO Planner's Initials

*Jeff Fisher*

Jeff Fisher, AICP
Planning Division Manager
Department of Development Services

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MIDLAND
Planning Division

4

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**I object to this request** ✓ **Comments:** I BOUGHT OUT HERE BECAUSE OF THE OPENESS AND SPACING OF THE HOUSES I DONT WANT TO CHANGE ANYTHING THAT WILL EFFECT VALUATION OF PROPERTY.

**Required Information:**

Property Owner's Signature: [signature] | Printed Name: BYRON FENDER | Property Address (**No P. O. Boxes**): 6001 MEADOWVIEW LN.

If any further information is desired, please contact the Planning Division, at 685-7400.
Si ud. desea más información en Español sobre este caso, llame al : 685-7400.

Notices Mailed: 9
Date Mailed: 8/25/2023
Case Number: E-23-0103
Case Name: 4416 Tanforan Ave
LO Planner's Initials

*Jeff Fisher*

Jeff Fisher, AICP
Planning Division Manager
Department of Development Services

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MIDLAND
Planning Division

RECEIVED
SEP 25 2023

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**I object to this request** X **Comments:** Reason for purchasing 20 plus years ago was no lot less than 2 Acres, We have 3 Acres + we told the Zoning laws then.

**Required Information:**

| Property Owner's Signature | Printed Name | Property Address (**No P. O. Boxes**) |
|---|---|---|
| | Russell Winkley | 4410 Tanforan Ave |

If any further information is desired, please contact the Planning Division, at 685-7400.
Si ud. desea más información en Español sobre este caso, llame al : 685-7400.

Notices Mailed: 9
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MIDLAND
Planning Division

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BY

The **City Council** of the City of Midland, Texas will hold a public hearing at **10:00 a.m.** on **Tuesday, September 12, 2023,** in the Council Chambers, City Hall, 300 N. Loraine, Midland, Texas 79701, on a request by **Maverick Engineering** for approval of a **Special Exception to the City of Midland Zoning Ordinance, 5.04 – Residential Zoning District Dimensional Regulations Chart, for a reduced minimum lot area** on the following described property:

**LEGAL DESCRIPTION:** Lot 2, Block 3, Melody Acres, Section 4, City and County of Midland, Texas.

**LOCATION:** Generally located on the north side of Tanforan Avenue approximately 200-feet east of Oriole Drive. (Council District 4)

Not to be considered a part of the Public Notice: 1) See reverse side for location map; 2) In order to be considered as an official objection to this request a response **must be submitted by mail or delivered *in writing*** to the Planning Division at the address listed above. An official objection may be filed by completing this notice and returning it to the address listed above.

**I object to this request** X **Comments:** Bought Property for space. Road is already to busy, lower value of home. STRONGLEY OBJECT

**Required Information:**

Ryan Thomas
Property Owner's Signature

Ryan Thomas
Printed Name

4413 Tanforan
Property Address (**No P. O. Boxes**)

If any further information is desired, please contact the Planning Division, at 685-7400.
Si ud. desea más información en Español sobre este caso, llame al : 685-7400.

Notices Mailed: 9
Date Mailed: 8/25/2023
Case Number: E-23-0103
Case Name: 4416 Tanforan Ave
LO Planner's Initials

*Jeff Fisher*

Jeff Fisher, AICP
Planning Division Manager
Department of Development Services

The meeting facility is accessible to disabled persons. A wheelchair entry ramp is located at the southeast entrance to City Hall. A parking space designated for use by disabled persons is available near the southeast entrance doors. Any disabled person needing special accommodations or hearing impaired persons wishing to have an interpreter should request services through the Administrative Services Department at least 48 hours prior to the scheduled meeting by contacting Compliance Coordinator for the City of Midland at (432) 685-7251. If communication via TDD is required, please call 1-800-735-2989.

# City Council Meeting

**Item Number:** 34

**Meeting Date:** October 24, 2023, November 14, 2023

**To:** City Council / City Manager

**From:** Landon Ochoa, Senior Planner

**Subject:** AN ORDINANCE VACATING AND ABANDONING A 0.42-ACRE PORTION OF NORTH N STREET RIGHT-OF WAY AND A 0.13-ACRE PORTION OF ALLEY RIGHT-OF-WAY, EACH LOCATED ADJACENT TO OR WITHIN BLOCK 11, HIGHLAND PARK ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED NORTH OF THE INTERSECTION OF NORTH N STREET AND WEST ILLINOIS AVENUE); ADOPTING THE APPRAISAL BY THE ASSISTANT CITY MANAGER OF $75,592.00; RETAINING A NONEXCLUSIVE UTILITY EASEMENT; AND ORDERING RECORDATION BY THE CITY SECRETARY (DISTRICT 3) (DEVELOPMENT SERVICES)

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**Purpose:**

Midland Memorial Hospital is requesting to vacate a 0.42-acre portion of North N Street right-of way between West Illinois Avenue and West Ohio Avenue, and a 0.13-acre portion of alley right-of-way within Block 11, Highland Park addition, City and County of Midland, Texas for the development of medical office buildings.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

The 2023 appraised value of the right-of-way is $4.00 per square foot, for a total value of $75,592.

**Discussion:**

The approximated area that will be vacated is 30,184 square feet (0.55-acres).

This request is associated with the plat of Midland Memorial Hospital, Section 3. This plat is currently in the preliminary phase and was approved by the Planning & Zoning Commission on September 5, 2023.

This request is also associated with a zone change request which was on the October 16, 2023 Planning and Zoning Commission meeting.

This request has been circulated and reviewed by all pertinent City departments and franchise utility companies. Their comments, conditions, and requests are as follows:

**Code Compliance: (Approved)**

No oil and gas issues.

**Building Code: (Approved)**

No issues.

**Engineering: (Approved)**

No objections to vacation. Applicant shall be responsible for relocating any utilities, if existing, or providing easements as needed.

**Fire: (Approved)**

No objection to vacation request.

**Transportation: (Approved)**

No objections to vacation. Applicant shall be responsible for relocating any utilities, if existing, or providing easements as needed.

**GIS: (Approved)**

No comments.

**AT&T: (Approved)**

We have cable on North N St. and down the alley requesting vacation. Whoever is wanting it vacated would need to pay to have all cables relocate.

**Atmos: (Approved)**

Atmos Energy currently has facilities located within the above-described alley and street Right of Way proposed to be vacated. Atmos would have no objection to this vacation if a utility easement is maintained for the portion of N Street planned for vacation. Our gas facilities in the alley right of way can be retired and relocated. Any relocation costs would be passed on to

the property owner or entity requesting the vacate.

**Astound: (Approved with Conditions)**

Astound has stated that they have utilities in the in the area. They are fine with the vacation as long as the applicant pays for the relocation of utilities and a utility easement for the portion of North N Street is kept.

**Oncor: (Approved)**

Oncor has both Overhead and Underground facilities in the area identified. We will work with our internal partners to provide a cost to relocate the Oncor facilities to vacate the area.

**Altice USA: (Approved)**

Optimum does have coax aerial plant in the alley described on your map. There are a few businesses north of that alley, we cannot vacate & terminate their services. We have been in touch with the hospital P.O.C. concerning this vacate & they are aware of this issue. We will work on a quote & redesign for us to vacate & relocate our plant at their cost.

**Planning:**

Pertinent City departments and franchise utility companies have reviewed this vacation request and have approved the request.

Therefore, staff recommends approval of this vacation subject to conditions A through C.

**Conditions:**

A. **That the value of the property shall be $75,592.**

B. **That an accessible nonexclusive utility easement is retained in the 0.42-acre portion of N Street.**

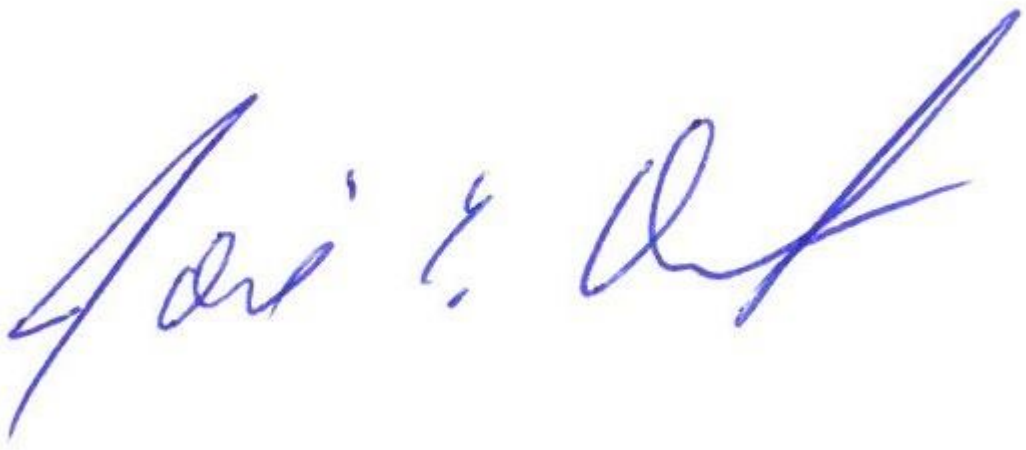
C. **That a replat of the subject property is approved by the City of Midland and filed and recorded with the County Clerk of Midland County.**

**Letters of Objection:**

As of October 13, staff has not received any letters of objection to this request.

**Attachments:**

Metes & Bounds (Exhibit A)
Vacation Survey (Exhibit B)
Application
Maps
Responses from Franchise Utility Companies



City Manager's Office

**ORDINANCE NO. _____**

**AN ORDINANCE VACATING AND ABANDONING A 0.42-ACRE PORTION OF NORTH N STREET RIGHT-OF WAY AND A 0.13-ACRE PORTION OF ALLEY RIGHT-OF-WAY, EACH LOCATED ADJACENT TO OR WITHIN BLOCK 11, HIGHLAND PARK ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED NORTH OF THE INTERSECTION OF NORTH N STREET AND WEST ILLINOIS AVENUE); ADOPTING THE APPRAISAL BY THE ASSISTANT CITY MANAGER OF $75,592.00; RETAINING A NONEXCLUSIVE UTILITY EASEMENT; AND ORDERING RECORDATION BY THE CITY SECRETARY**

**WHEREAS**, it has been determined by the Midland City Council that a 0.42-acre portion of North N Street right-of way and a 0.13-acre portion of alley right-of-way, each located adjacent to or within Block 11, Highland Park Addition, City and County of Midland, Texas, as described in Exhibits "A" and "B" attached hereto and made a part hereof for all legal purposes (the "Property"), are no longer needed for public use; and

**WHEREAS,** Section 272.001 of the Texas Local Government Code provides that a political subdivision may not convey, sell, or exchange its interest in land without observing notice and bid requirements, unless the conveyance is to one or more abutting property owners; and

**WHEREAS,** an application for vacating the Property has been received by the City from the abutting property owner; and

**WHEREAS,** the Assistant City Manager has appraised the value of the City's property interest in the Property at $75,592.00, as shown in Exhibit "C" attached hereto and incorporated herein by reference; and

**WHEREAS**, the Council finds it to be in the public interest to abandon and vacate the Property;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the Property is hereby vacated and abandoned for all public

purposes. Provided, however, that the City is hereby abandoning only the public interest in the Property, and this ordinance in no way affects any private easement or access easement which abutting property owners may have in the Property.

**SECTION TWO.** That this ordinance shall not be effective until:

A. the City of Midland has received from the abutting property owner(s) the sum of $75,592.00; and

B. a replat of the Property is approved by the City of Midland and filed and recorded with the County Clerk of Midland County, Texas.

**SECTION THREE.** That the City herein retains an accessible nonexclusive utility easement across, through, over, under, on and along the aforementioned 0.42-acre portion of North N Street right-of way included in the Property until all entities that were using said portion of the Property for utility purposes as of the date of approval of this ordinance have abandoned their uses of the Property.

**SECTION FOUR.** That upon the City's receipt of the sum set forth in Section Two hereof, the City Secretary is hereby authorized and directed to file a certified copy of this ordinance with the County Clerk of Midland County, Texas, for purposes of recording in the Official Records of Midland County, Texas.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2023; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2023, at a regular

meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Cristina Burns, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

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2481 E. 2nd St.
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(432) 935-0707

"EXHIBIT A"
LEGAL DESCRIPTION FOR A
24,166 SQUARE FEET TRACT
LOCATED IN SECTION 27, BLOCK 39, T-1-S, T&P R.R. CO. SURVEY,
CITY AND COUNTY OF MIDLAND, TEXAS

BOUNDARY BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a ½" Iron rod with cap "RPLS 1974" found in the south right-of-way line of West Ohio Avenue and the east right-of-way line of North "N" Street, being the northwest corner of the Block 11, Highland Park Addition, as recorded in Cabinet C, Page 96, Midland County Plat Records and the most northerly northeast corner of this tract;

THENCE S 14°11'53" E along the east right-of-way line of said North "N" Street and the west line of said Block 11, a distance of 139.77 feet to a Mag nail with washer "RPLS 1974" found at the southwest corner of the North Half of said Block 11 and an ell corner of this tract;

THENCE N 75°48'07" E along the south line of said North Half of said Block 11, a distance of 299.83 feet to the southeast corner of said North Half of said Block 11 and the most easterly northeast corner of this tract;

THENCE S 14°11'53" E along the west right-of-way line of said North "M" Street, a distance of 20.07 feet to a ½" Iron rod with cap "RPLS 1974" found at the northeast corner of the South Half of said Block 11, being the most easterly southeast corner of this tract;

THENCE S 75°48'07" W along the north line of said South Half of said Block 11, a distance of 299.83 feet to a ½" Iron rod found in the east right-of-way line of said North "N" Street, being the northwest corner of said South Half of said Block 11 and an ell corner of this tract;

THENCE S 14°11'53" E along the east right-of-way line of said North "N" Street and the west line of said South Half of said Block 11, a distance of 139.84 feet to a ½" Iron rod with cap "RPLS 1974" found in the north right-of-way line of West Illinois Avenue, being the southwest corner of said South Half of said Block 11 and the most southerly southeast corner of this tract;

THENCE S 75°35'46" W along the north right-of-way line of said West Illinois Avenue, a distance of 75.15 feet to a ½" Iron rod found in the southwest cutback corner of said North "N" Street, being the most southerly southeast corner of Lot 1A, Block 1, Midland Memorial Hospital, Section 2, as recorded in Cabinet I, Page 53, Midland County Plat Records and the southwest corner of this tract;

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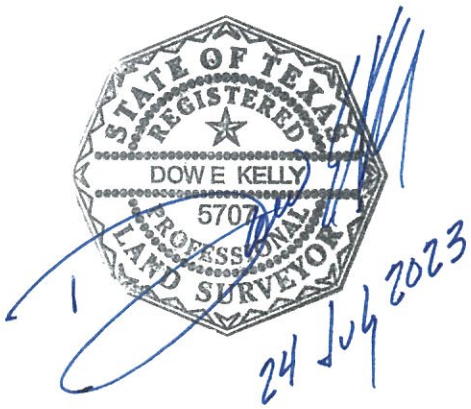
THENCE N 30°41'58" E along said cutback, a distance of 21.25 feet to the most easterly southeast corner of said Lot 1A, being a point of deflection of this tract;

THENCE N 14°11'53" W along the west right of way line of said North "N" Street and the east line of said Lot 1A, a distance of 284.90 feet to the northwest corner of this tract, and being in a projection of the south right-of-way line of said West Ohio Avenue;

THENCE N 75°48'07" E along the south right-of-way line of said West Ohio Avenue, a distance of 60.15 feet to the Point of Beginning, containing 24,166 surface square feet of land.

Bearings and distances are relative to the Texas State Plane Coordinate System, 1983 NAD, Central Zone, with a combined Grid Factor of 0.999901786 and a Theta Angle of -00°54'32".

Exhibit 'B' accompanies this description.

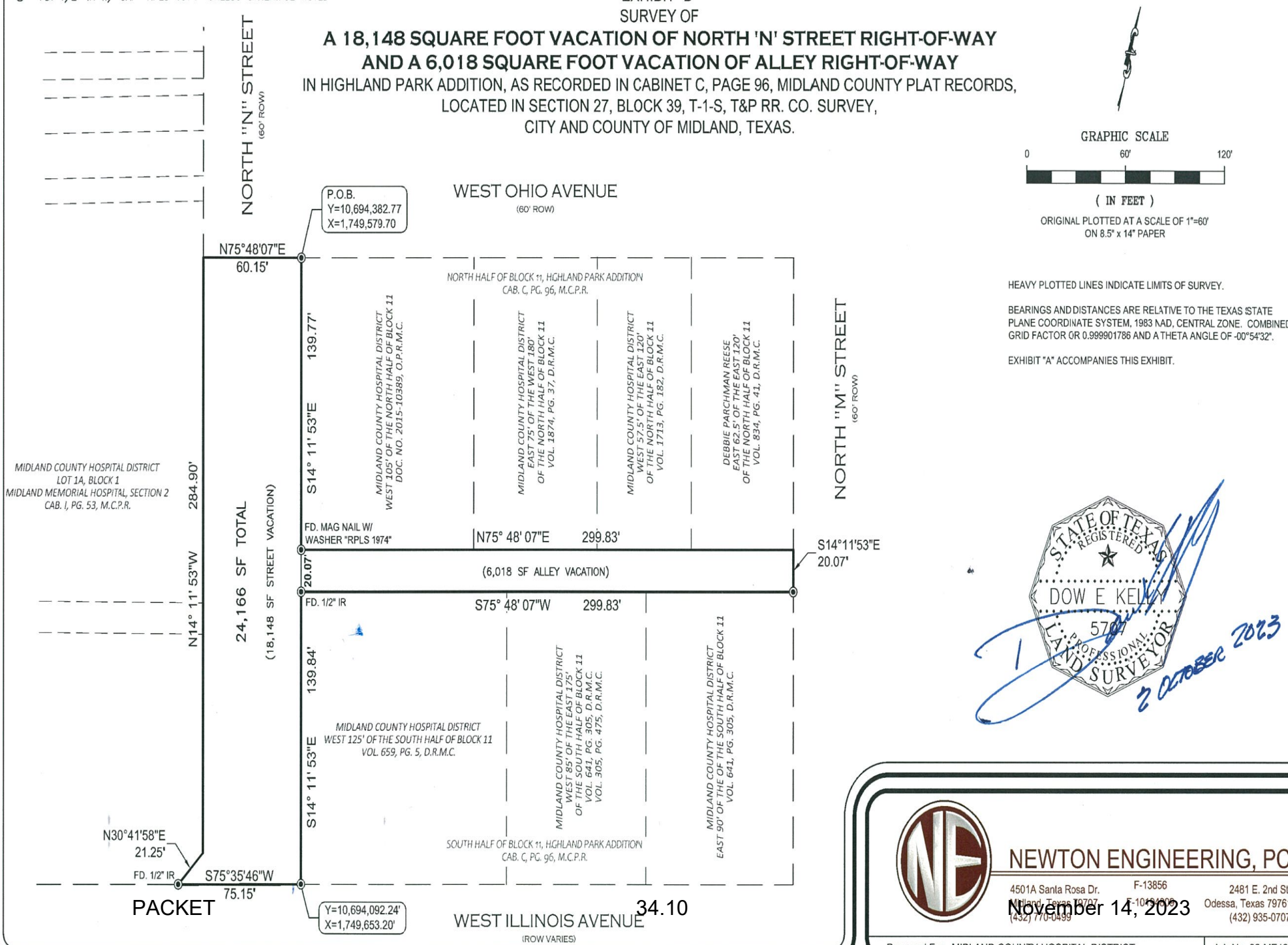


◉ FD. 1/2" IR W/ CAP "RPLS 1974" UNLESS OTHERWISE NOTED

EXHIBIT "B"
SURVEY OF

# A 18,148 SQUARE FOOT VACATION OF NORTH 'N' STREET RIGHT-OF-WAY AND A 6,018 SQUARE FOOT VACATION OF ALLEY RIGHT-OF-WAY

IN HIGHLAND PARK ADDITION, AS RECORDED IN CABINET C, PAGE 96, MIDLAND COUNTY PLAT RECORDS, LOCATED IN SECTION 27, BLOCK 39, T-1-S, T&P RR. CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS.




GRAPHIC SCALE

0 60' 120'

( IN FEET )

ORIGINAL PLOTTED AT A SCALE OF 1"=60' ON 8.5" x 14" PAPER

HEAVY PLOTTED LINES INDICATE LIMITS OF SURVEY.

BEARINGS AND DISTANCES ARE RELATIVE TO THE TEXAS STATE PLANE COORDINATE SYSTEM, 1983 NAD, CENTRAL ZONE. COMBINED GRID FACTOR OR 0.999901786 AND A THETA ANGLE OF -00°54'32".

EXHIBIT "A" ACCOMPANIES THIS EXHIBIT.

STATE OF TEXAS
REGISTERED
DOW E KELLY
5707
PROFESSIONAL
LAND SURVEYOR

2 OCTOBER 2023

NEWTON ENGINEERING, PC

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Odessa, Texas 79761
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Prepared For: MIDLAND COUNTY HOSPITAL DISTRICT | Job No. 22-ME12291

MIDLAND
Feel the Energy!

Office of the City Manager

October 16, 2023

Midland City Council
City of Midland, Texas

**RE: Request for vacation of a 0.42-acre portion of North N Street right-of way and a 0.13-acre portion of alley right-of-way, each located adjacent to or within Block 11, Highland Park Addition, City and County of Midland, Texas, City and County of Midland, Texas**

Dear Members of the City Council:

The above-referenced property has been appraised in accordance with Chapter 272 of the Texas Local Government Code. The fair market value of the property is $75,592.00. Upon the City's receipt of this sum from the adjoining property owner(s), the ordinance vacating and abandoning the City's interest in the property may be recorded in the Midland County Clerk's office.

Very truly yours,

Jose Ortiz
Assistant City Manager



300 N. Loraine, Midland TX 79701 • 432-685-7202 • Fax 432-686-1600

MIDLAND
Planning Division

**Vacate Right-of-Way/Public Utility Easement/Land/Street Application**

Project Number: _____

Case Number: V-23-0054

| **Applicant** *(if acting as Agent, see affidavit on page 2)* Printed Name: Midland Memorial Hospital | | Phone ( ) Email | |
|---|---|---|---|
| Address 400 Rosalind Redfern Grover Parkway | City Midland | State TX | Zip 79701 |

**Application is hereby made to the City Council to vacate the following:**

- ☑ Right-of-Way
- ☐ Public Utility Easement
- ☐ Land
- ☐ Street

**Description of Address:** North "N" Street from W. Ohio Ave to W. Illinois Ave and 20' alley located in Block 11 of Highland Park Addition.

**Reason for Request:** Right of way abandonment will facilitate development of new office building for Midland Memorial Hospital.

**Reasons, in applicant's opinion, why the requested vacation will not adversely affect the public welfare or will contribute to it in a positive way:** Vacating this portion of North "N" Street will have minimal impact on traffic patterns. An easement will be granted as per replat for the existing utilities in North "N" Street to allow them to remain in place.

**Submittal and Fees**

**Items to be submitted with this application form:**

- Application Fee – Payable to the 'City of Midland'
- Sealed metes and bounds description of the property to be vacated (included on the map) and total square feet of vacation. Include ownership, legal and deed information for adjacent property owners
- Digital Copies of Survey (PDF/JPEG)

**Utility Company Approval**

Clearance is needed from the following utility companies:

- City of Midland
- AT&T
- Atmos Energy
- Suddenlink Cable TV Co.
- Oncor Electric
- Grande Communications

The City will route the request to these companies, but it is the applicant's responsibility to ensure clearance has been obtained to resolve any issues that may arise.

## Policies

1. If the vacation request involves only a portion of a section right-of-way, such that approval would not affect the public's ability to travel along said right-of-way, then the request will be scheduled for consideration by the City Council. No public hearing will be needed.

2. If the vacation request involves an entire section of right-of-way, such that approval would cause the public to lose all rights to use it, then the following procedures apply:

   a. Nearby land owners who have a reasonable expectation to use said right-of-way, as determined by the Transportation Division, must first agree to the proposed vacation. It is the applicant's responsibility to obtain a letter of concurrence signed by the affected landowners.

   b. If all letters are received indicating that the affected landowners agree to the request, then a public hearing before the City Council will be scheduled. The Planning Division will mail public notice of the hearing to landowners within 400 feet of the affected right-of-way.

   c. If a request is approved, the right-of-way shall be divided into two equal parts, with each half becoming the property of the respective abutting owner. If the applicant desires to own the entire width, he or she must negotiate with the opposite landowner.

## Signatures

| | | |
|---|---|---|
| Applicant (signature): [signature] | | Date: 8/7/2023 |
| **Affected Property Owners:** | | |
| Signature: [signature] | Print: Debbie P. Reese | Date: 8/4/2023 |
| Signature: | Print: | Date |
| Signature: | Print: | Date |
| Signature: | Print: | Date |

*The Vacation of right-of-way/public utility easement/land/street shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.*

## FOR OFFICE USE ONLY

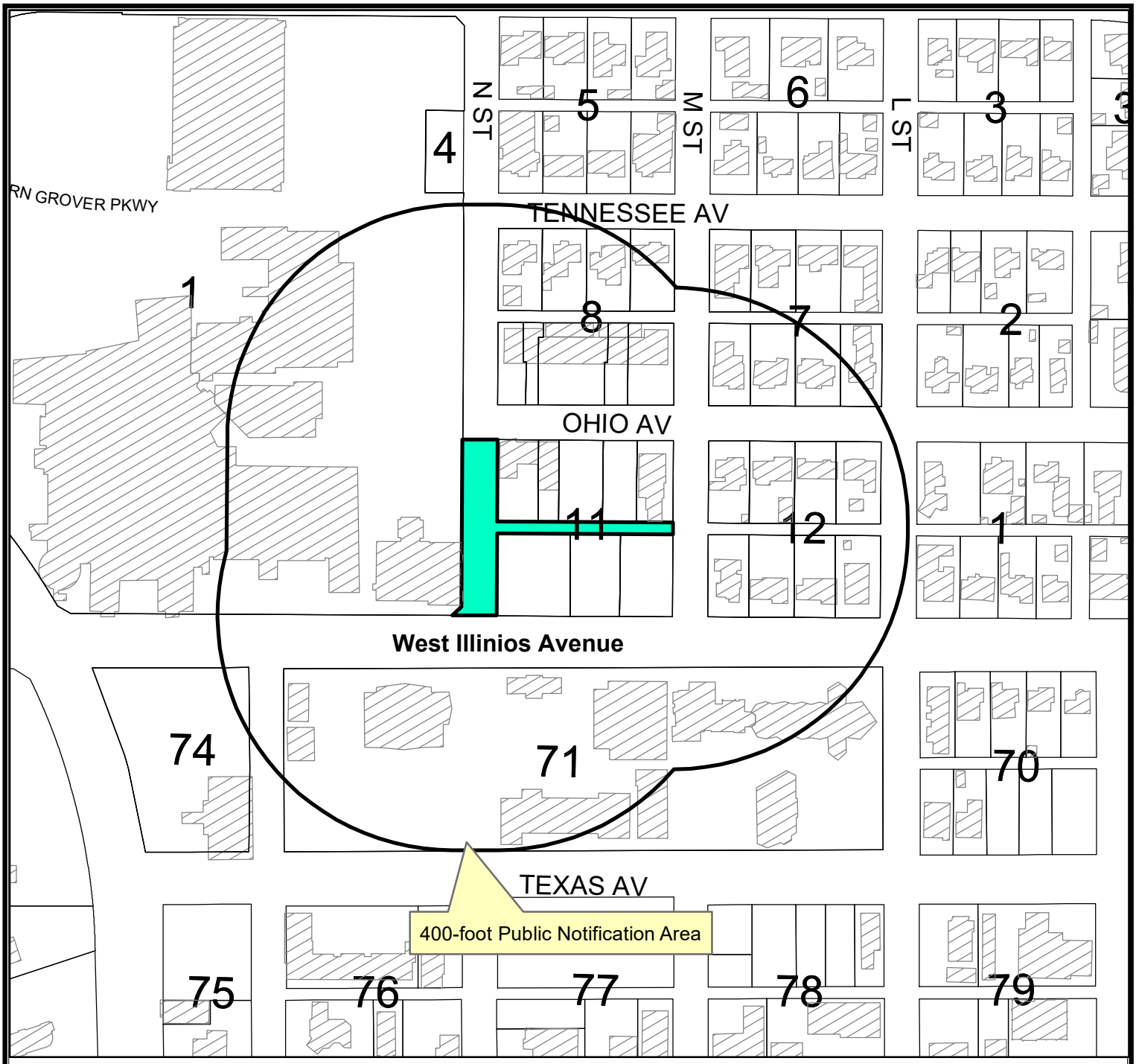
☑ 1 FOLDED Copy of Survey ☑ Survey in Digital Format (PDF/JPEG)

☑ Application Fee

Check # Paid

| | |
|---|---|
| Received By: [signature] | Date: SEP 05 2023 |

****Application will not be considered for scheduling until reviewed by a planner.****




# LOCATION MAP

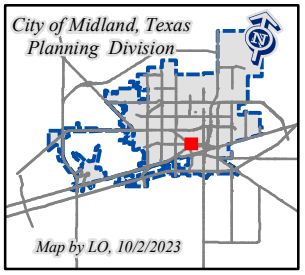
**V-23-0054** **Scale: 1" = 2,951'**

Consider a request for a vacation by Midland Memorial Hospital of a 0.42-acre portion of North N Street right-of way between West Illinois Avenue and West Ohio Avenue, and a 0.13-acre portion of alley right-of-way within Block 11, Highland Park Addition, City and County of Midland, Texas.

Generally located on the northeast corner of the intersection of North N Street and West Illinois Avenue. (Council District 3)

**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




©THE CITY OF MIDLAND - 2021
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.

November 14, 2023

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"EXHIBIT A"
LEGAL DESCRIPTION FOR A
24,166 SQUARE FEET TRACT
LOCATED IN SECTION 27, BLOCK 39, T-1-S, T&P R.R. CO. SURVEY,
CITY AND COUNTY OF MIDLAND, TEXAS

BOUNDARY BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

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THENCE S 14°11'53" E along the east right-of-way line of said North "N" Street and the west line of said Block 11, a distance of 139.77 feet to a Mag nail with washer "RPLS 1974" found at the southwest corner of the North Half of said Block 11 and an ell corner of this tract;

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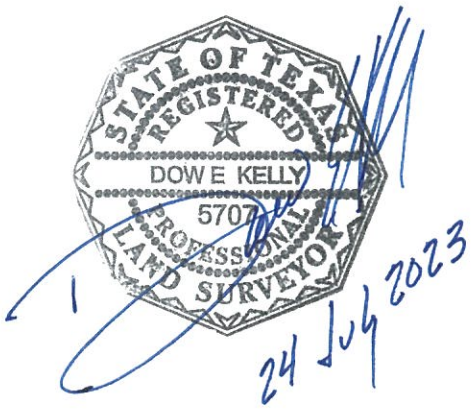
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Bearings and distances are relative to the Texas State Plane Coordinate System, 1983 NAD, Central Zone, with a combined Grid Factor of 0.999901786 and a Theta Angle of -00°54'32".

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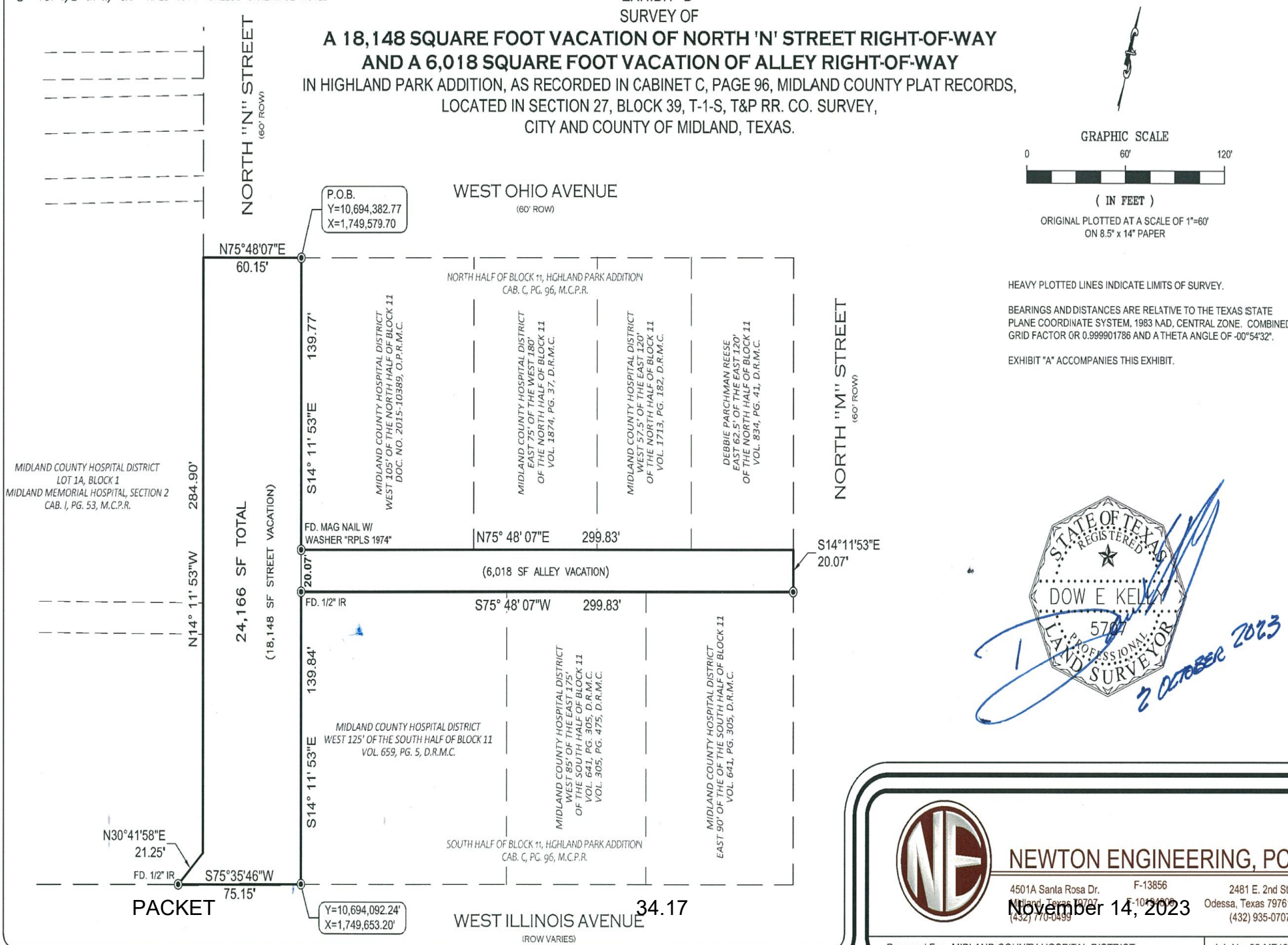


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# A 18,148 SQUARE FOOT VACATION OF NORTH 'N' STREET RIGHT-OF-WAY AND A 6,018 SQUARE FOOT VACATION OF ALLEY RIGHT-OF-WAY

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GRAPHIC SCALE

0 60' 120'

( IN FEET )

ORIGINAL PLOTTED AT A SCALE OF 1"=60' ON 8.5" x 14" PAPER

HEAVY PLOTTED LINES INDICATE LIMITS OF SURVEY.

BEARINGS AND DISTANCES ARE RELATIVE TO THE TEXAS STATE PLANE COORDINATE SYSTEM, 1983 NAD, CENTRAL ZONE. COMBINED GRID FACTOR OR 0.999901786 AND A THETA ANGLE OF -00°54'32".

EXHIBIT "A" ACCOMPANIES THIS EXHIBIT.

STATE OF TEXAS
REGISTERED
DOW E KELLY
5707
PROFESSIONAL
LAND SURVEYOR

2 OCTOBER 2023

NEWTON ENGINEERING, PC

4501A Santa Rosa Dr.
Midland, Texas 79707
(432) 770-0499

F-13856
F-10194006

2481 E. 2nd St.
Odessa, Texas 79761
(432) 935-0707

Prepared For: MIDLAND COUNTY HOSPITAL DISTRICT

Job No. 22-ME12291


SPEED
LIMIT
30
PRIVATE
PARKING




STOP


301

## Landon J. Ochoa

**From:** LReyna@midcad.org
**Sent:** Tuesday, October 10, 2023 11:05 AM
**To:** Landon J. Ochoa
**Cc:** Jeffrey S. Fisher
**Subject:** Re: Vacation Valuations

**Importance:** High

Hi Landon,

This is the last one! Let me know if you need anything else!

To map use R 24832

North "N" St: 72592 sq ft X $4.00 = $75,592
Alley: 6018 sa ft X $4.00 + 24,072

Sincerely,

***Lisa Reyna, RPA***
***Assistant Chief Appraiser***
***Midland Central Appraisal District***
***4631 Andrews Hwy***
***Midland, TX 79703***
***Phone (432) 699-4991***
***Fax (432) 689-7185***

From: "Landon J. Ochoa" <ljochoa@midlandtexas.gov>
To: Lisa Reyna <lreyna@midcad.org>
Cc: "Jeffrey S. Fisher" <jsfisher@midlandtexas.gov>
Date: 10/09/2023 05:15 PM
Subject: Vacation Valuations

---

Good afternoon, Lisa.

I would like to follow up with you regarding the valuations of properties associated with three vacation requests. We will need these valuations by Thursday at the latest if we are to take the requests to the October 24 City Council meeting. Thank you.

Respectfully,

Landon Ochoa
Senior Planner

Planning Division
Development Services
O. 432-685-7405
ljochoa@midlandtexas.gov









300 N. Loraine | P.O. Box 1152 | Midland, TX 79702

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ATMOS ENERGY

West Texas Division
P.O. Box 1111,
Midland, Texas 79702

City of Midland
Landon Ochoa
Planning Division
Development Services
300 N. Loraine
Midland, Texas 79701

October 9, 2023

Re: Case Name: Midland Memorial
Case Number: V-23-0054

Mr. Ochoa,

Atmos Energy currently has facilities located within the above-described alley and street Right of Way proposed to be vacated. Atmos would have no objection to this vacation if a utility easement is maintained for the portion of N Street planned for vacation. Our gas facilities in the alley right of way can be retired and relocated. Any relocation costs would be passed on to the property owner or entity requesting the vacate.
Please let me know if you have any further questions.

Sincerely,

Mark Lieb

Mark Lieb
Project Specialist
Atmos Energy/Permian Basin
432-967-0370 cell
mark.lieb@atmosenergy.com

## Landon J. Ochoa

**From:** Luis Montez <Luis.Montez@AlticeUSA.com>
**Sent:** Tuesday, October 3, 2023 11:40 AM
**To:** Landon J. Ochoa
**Cc:** Eron Zapata; Raymond Revilla; Lorenzo Reyes; Vanessa Chavarria
**Subject:** RE: External E-mail - V-23-0054, Midland Memorial Hospital Vacation (Altice)

Mr. Ochoa,
Optimum does have coax aerial plant in the alley described on your map.
There are a few businesses north of that alley, we cannot vacate & terminate their services.
I have been in touch with the hospital P.O.C. concerning this vacate & they are aware of this issue.
I will work on a quote & redesign, for us to vacate & relocate our plant at their cost.
They are not planning to start anything until next year.

---

**From:** Landon J. Ochoa <ljochoa@midlandtexas.gov>
**Sent:** Tuesday, October 3, 2023 11:10 AM
**To:** Luis Montez <Luis.Montez@AlticeUSA.com>
**Subject:** External E-mail - V-23-0054, Midland Memorial Hospital Vacation (Altice)

**[External Email]**

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Good morning, Luiz.

Please see the attached letter and supporting documents and provide comments by October 10, 2023 as this request will be going to the October 24 City Council meeting.

Respectfully,

Landon Ochoa
Senior Planner
Planning Division
Development Services
O. 432-685-7405
ljochoa@midlandtexas.gov

300 N. Loraine | P.O. Box 1152 | Midland, TX 79702

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## Landon J. Ochoa

**From:** Ruben Guerra <ruben.guerra@astound.com>
**Sent:** Friday, October 13, 2023 2:22 PM
**To:** Landon J. Ochoa
**Subject:** Re: V-23-0054, Midland Memorial Hospital Vacation (Grande)

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

Yes

**Thank You**
Ruben Guerra
**Construction Coordinator**
O: 432-272-3088
C: 432-653-9369
Ruben.Guerra@astound.com
**Astound Business Solutions**
**Powered by RCN | Grande | Wave**
**astound.com**

On Fri, Oct 13, 2023 at 11:35 AM Landon J. Ochoa <ljochoa@midlandtexas.gov> wrote:

> But you would still be okay with the vacation as long as they pay to do it, right?

---

**From:** Ruben Guerra <ruben.guerra@astound.com>
**Sent:** Friday, October 13, 2023 11:26 AM
**To:** Landon J. Ochoa <ljochoa@midlandtexas.gov>
**Subject:** Re: V-23-0054, Midland Memorial Hospital Vacation (Grande)

I know this section will have to go underground cause I drove it out, this project will be costed high.

**Thank You**

Ruben Guerra

**Construction Coordinator**

O: 432-272-3088

C: 432-653-9369

Ruben.Guerra@astound.com

**Astound Business Solutions**

**Powered by RCN | Grande | Wave**

**astound.com**

On Fri, Oct 13, 2023 at 11:11 AM Landon J. Ochoa <ljochoa@midlandtexas.gov> wrote:

> Ruben,
>
> Are you okay with this vacation as well if the applicant pays for the relocation?
>
> ---
>
> **From:** Ruben Guerra <ruben.guerra@astound.com>
> **Sent:** Tuesday, October 3, 2023 1:38 PM
> **To:** Landon J. Ochoa <ljochoa@midlandtexas.gov>
> **Subject:** Re: V-23-0054, Midland Memorial Hospital Vacation (Grande)
>
> Yes we do have utilities located in this section as well. I would have to ask who will be the responsible party for the relocation of our utilities.
>
> On Tue, Oct 3, 2023 at 11:13 AM Landon J. Ochoa <ljochoa@midlandtexas.gov> wrote:
>
> > Good morning, Ruben.
> >
> > Please see the attached letter and supporting documents and provide comments by October 10, 2023 as this request will be going to the October 24 City Council meeting.

Respectfully,

Landon Ochoa

Senior Planner

Planning Division

Development Services

O. 432-685-7405

ljochoa@midlandtexas.gov






300 N. Loraine | P.O. Box 1152 | Midland, TX 79702

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## Landon J. Ochoa

**From:** UNDERWOOD, JERRY D <ju1659@att.com>
**Sent:** Tuesday, October 3, 2023 11:01 AM
**To:** Landon J. Ochoa
**Cc:** DODSON, KRISTOPHER
**Subject:** RE: V-23-0054, Midland Memorial Hospital Vacation (AT&T)

Good morning,

We have cable on North N St and down the alley requesting vacation. Whoever is wanting it vacated would need to pay to have all cables relocate.

Thanks
Jerry

Thanks,
Jerry

---

**From:** Landon J. Ochoa <ljochoa@midlandtexas.gov>
**Sent:** Tuesday, October 3, 2023 10:54 AM
**To:** UNDERWOOD, JERRY D <ju1659@att.com>
**Subject:** V-23-0054, Midland Memorial Hospital Vacation (AT&T)

Good morning, Jerry.

Please see the attached letter and supporting documents and provide comments by October 10, 2023 as this request will be going to the October 24 City Council meeting. Thank you!

Respectfully,

Landon Ochoa
Senior Planner
Planning Division
Development Services
O. 432-685-7405
ljochoa@midlandtexas.gov

MIDLAND
Feel the Energy!



300 N. Loraine | P.O. Box 1152 | Midland, TX 79702

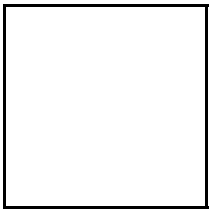
CAUTION: This email originated from outside your organization — exercise caution when opening attachments or clicking links, especially from unknown senders.

## Landon J. Ochoa

**From:** Landon J. Ochoa
**Sent:** Sunday, October 15, 2023 6:49 PM
**To:** Landon J. Ochoa
**Subject:** FW: V-23-0054, Midland Memorial Hospital Vacation (Oncor)

---

**From:** Molina, Sergio <Sergio.Molina@oncor.com>
**Sent:** Wednesday, October 11, 2023 8:12 PM
**To:** Landon J. Ochoa <ljochoa@midlandtexas.gov>; Arguello, Martin <Martin.Arguello@oncor.com>
**Subject:** RE: V-23-0054, Midland Memorial Hospital Vacation (Oncor)



Landon,

Oncor has both Overhead and Underground facilites in the area identified. We will work with our internal partners to provide a cost to relocate the Oncor facilities to vacate the area.

Regards,

Sergio Molina, P.E.
Oncor | NCM Manager WTX
Cell: 214.970.4143

My Manager: Hannah Hamilton
Cell: 432.894.4601 email: Hannah.Hamilton@oncor.com

# City Council Meeting

**Item Number:** 35

**Meeting Date:** October 24, 2023, November 14, 2023

**To:** City Council / City Manager

**From:** Rolandrea Russell, Assistant Director

**Subject:** AN ORDINANCE AMENDING TITLE XI, "PLANNING AND DEVELOPMENT" OF THE CITY CODE OF MIDLAND, TEXAS, BY ADDING CHAPTER 1A, "CENTENNIAL ENTERTAINMENT OVERLAY DISTRICT" SO AS TO ESTABLISH AN OVERLAY ZONING DISTRICT; ESTABLISHING PROVISIONS RELATED TO LAND USE AND DEVELOPMENT WITHIN SAID OVERLAY ZONING DISTRICT; AMENDING THE ZONING MAP; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ESTABLISHING AN EFFECTIVE DATE OF DECEMBER 1, 2023; AND ORDERING PUBLICATION (DISTRICT: ALL) (DEVELOPMENT SERVICES)

---

**Purpose:**

This ordinance is to amend Title XI, "Planning and Development", of the City Code of Midland, Texas by adding Chapter 1a, "Centennial Entertainment Overlay District", so as to establish an overlay zoning district and provisions related to the land use and development within said Overlay District and to amend the zoning map accordingly.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

This request will have no significant impact on the City.

**Discussion:**

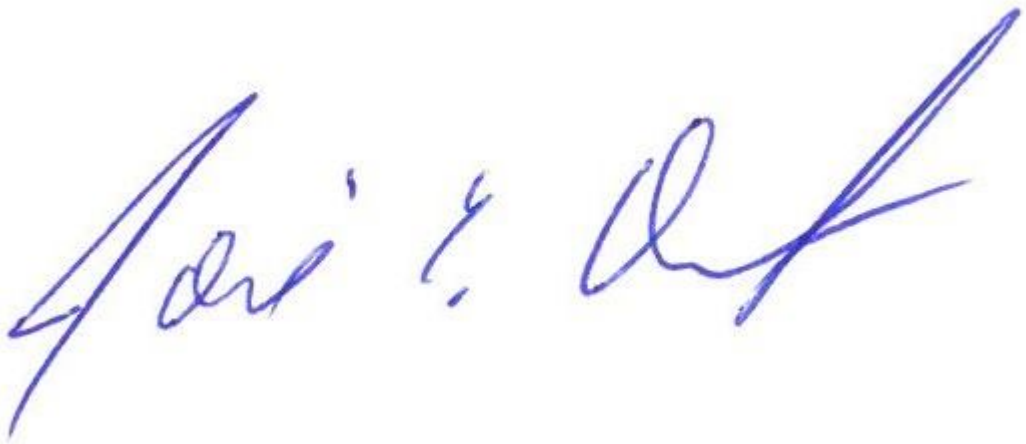
The proposed boundary of the Centennial Entertainment Overlay District will include approximately 49.50± acres within the CB, Central Business District. The purpose of this district is to provide for the development of downtown Midland as the regional business center for professional offices. This district is also designed to promote a vibrant downtown by providing residential, restaurant, retail, hotel, and other unique development opportunities that encourage downtown development and redevelopment efforts.

The purpose of the Centennial Entertainment Overlay District is to provide destination-oriented venues to promote a vibrant and active core in Midland's central business district, leveraging Centennial Park as an engaging public space, and providing residents and employees opportunities to socialize and be entertained. The Centennial Entertainment Overlay District is anticipated to encourage economic development through infill and redevelopment of underutilized properties and adaptive reuse of existing buildings. The balance of land uses for working, living, shopping, and entertainment creates an environment conducive to increasing the quality of life for residents and employees and furthering the City of Midland's unique identity.

The Centennial Entertainment Overlay District will allow all uses allowed in the CB, Central Business District along with additional uses and regulations that will be unique to the Centennial Entertainment Overlay District.

The City Council approved an ordinance calling this joint public hearing on September 26, 2023. The public notices were published in the Midland Reporter-Telegram and on the City's website on September 28, 2023. This joint meeting was held on Tuesday, October 17, 2023.

The ordinance is now before the City Council for a vote to establish the overlay district and regulations.



**ORDINANCE NO. _____**

**AN ORDINANCE AMENDING TITLE XI, "PLANNING AND DEVELOPMENT" OF THE CITY CODE OF MIDLAND, TEXAS, BY ADDING CHAPTER 1A, "CENTENNIAL ENTERTAINMENT OVERLAY DISTRICT" SO AS TO ESTABLISH AN OVERLAY ZONING DISTRICT; ESTABLISHING PROVISIONS RELATED TO LAND USE AND DEVELOPMENT WITHIN SAID OVERLAY ZONING DISTRICT; AMENDING THE ZONING MAP; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ESTABLISHING AN EFFECTIVE DATE OF DECEMBER 1, 2023; AND ORDERING PUBLICATION**

**WHEREAS,** the City Council finds it to be in the public interest to approve and adopt an amendment to Title XI, "Planning and Development" of the City Code of the City of Midland, Texas, by adding Chapter 1a, "Centennial Entertainment Overlay District" so as to establish an overlay zoning district and provisions related to land use and development within said overlay zoning district and to amend the Zoning Map; and

**WHEREAS,** the City Council finds that the zoning regulations contained in Chapter 1a are in accordance with the City's comprehensive plan and have been designed to:

A. lessen congestion in the streets;

B. secure safety from fire, panic, and other dangers;

C. promote health and the general welfare;

D. provide adequate light and air;

E. prevent the overcrowding of land;

F. avoid undue concentration of population; and

G. facilitate the adequate provision of transportation, water, sewers, schools, parks, and other public requirements; and

**WHEREAS,** the City Council finds that the zoning regulations contained in Chapter 1a were made with reasonable consideration, among other things, for the character of each zoning district therein and its peculiar suitability for particular uses, with a view of

conserving the value of buildings and encouraging the most appropriate use of land in the City; and

**WHEREAS**, the City Council and the Planning and Zoning Commission jointly held a public hearing at 10:00 a.m. on October 17, 2023, at the Barbara and George H. W. Bush Convention Center, 105 N. Main Street, Ballroom A, Midland, Texas 79701, to hear comments regarding the proposed adoption of this ordinance; and

**WHEREAS**, in accordance with Texas Local Government Code Section 211.007(d), the City Council prescribed that notice of the joint public hearing was to be:

A. By publication in a newspaper of general circulation in the City of Midland before the 15th day before the date of the public hearing;

B. By publication on City of Midland's Internet website before the 15th day before the date of the public hearing; and

C. By posting notice in accordance with Texas Government Code Chapter 551 of the City Council meeting and the Planning and Zoning Commission meeting during which the public hearing will be held; and

**WHEREAS**, the City Council finds that notice of the public hearing was published and posted as prescribed by the City Council; and

**WHEREAS,** the City Council finds that all procedural requirements necessary for the adoption of this ordinance have been complied with and satisfied; and

**WHEREAS,** the City Council finds that the public health, safety and general welfare will be best served by amending Title XI, "Planning and Development" of the City Code of the City of Midland, Texas, as described in this ordinance;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That Title XI, "Planning and Development" of the City Code of the City of Midland, Texas, is hereby amended by adding Chapter 1a to read in its entirety

as follows:

**Chapter 1a - CENTENNIAL ENTERTAINMENT OVERLAY DISTRICT.**

11-1a-1 - Purpose.

The purpose of the Centennial Entertainment Overlay District is to provide for destination-oriented venues to promote a vibrant and active core in Midland's central business district, leveraging Centennial Park as an engaging public space, and providing residents and employees opportunities to socialize and be entertained. The Centennial Entertainment Overlay District is anticipated to encourage economic development through infill and redevelopment of underutilized properties and adaptive reuse of existing buildings. The balance of land uses for working, living, shopping and entertainment creates an environment conducive to increasing the quality of life for residents and employees and furthering the City of Midland's unique identity.

11-1a-2 - Application.

This Chapter applies only to property located within the Centennial Entertainment Overlay District.

11-1a-3 - Description of district.

*Centennial Entertainment Overlay District* means the portion of the City located within the following-described area and shown in Figure 11-1a-3.1:

An approximately 49.50-acre tract located in the City of Midland, Texas, and being a portion of Original Town Addition to the City of Midland, Texas, and all of Original Town Addition, Sections 3, 7, 8, 14 and 15 to the City of Midland, Texas, and being more fully described as follows:

Beginning at a point at the southeast corner of the intersection of W. Missouri Ave. and Big Spring St.,

Thence northerly along the easterly line of Big Spring St. about 1510 ft. to a point at the northeast corner of the intersection of Big Spring St. and Ohio St.,

Thence easterly along the south side line of Ohio St. about 380 ft to northeast corner of the intersection of Ohio Ave. and Colorado St.,

Thence northerly along the easterly line of Colorado St. about 380 ft. to the southeast corner of the intersection of Colorado St. and Tennessee Ave.,

Thence easterly along the south line of Tennessee Ave. about 380 ft. to the southeast corner of the intersection of Tennessee Ave. and Loraine St.,

Thence southerly along the east line of Loraine St about 380 ft. to the southeast corner of the intersection of Loraine St. and Ohio Ave.,

Thence easterly along the south line of Ohio Ave. about 380 ft. to the southwest corner of the intersection of Ohio Ave. and Main St.,

Thence southerly along the east line of N. Main St. about 380 ft. to the northeast corner of the intersection of Main St. and Illinois Ave.,

Thence easterly along the south line of Illinois Ave. a distance of about 340 ft. to a point at the southwest corner of the intersection of Illinois Ave. and Baird St.,

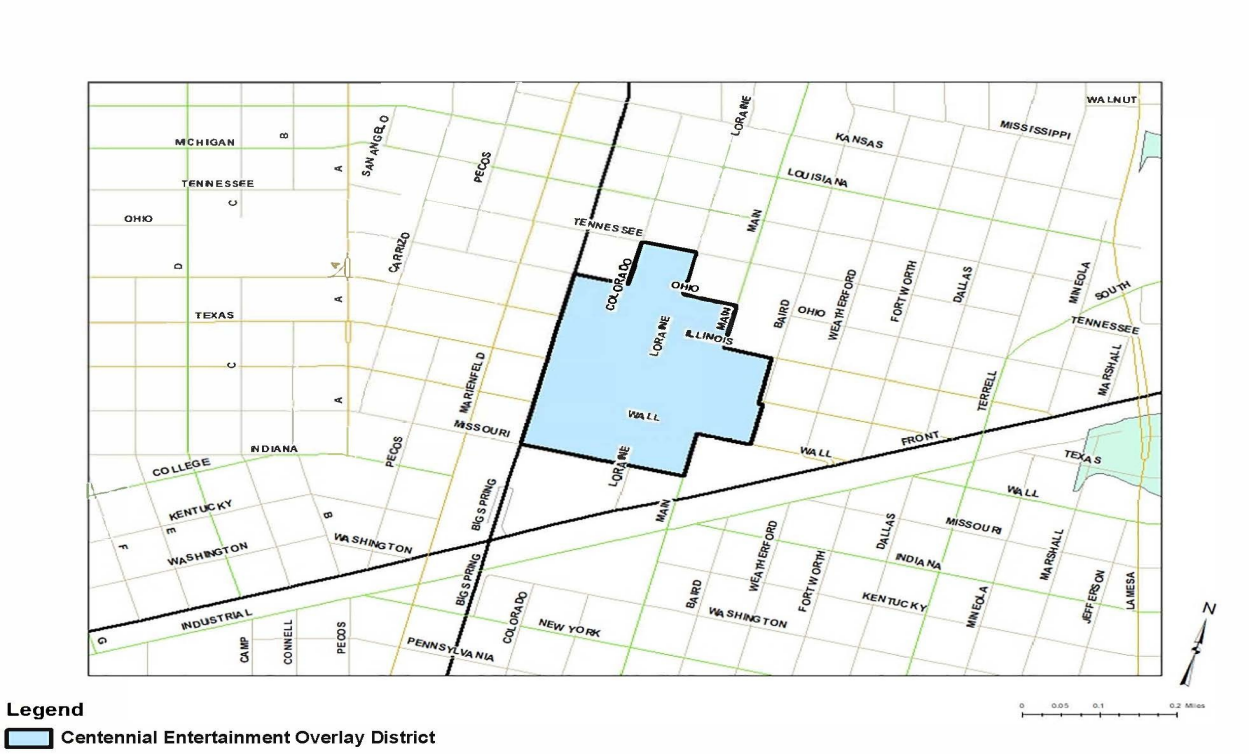
Thence southerly along the west line of Baird St. about 760 ft. to a point in the south line of W. Wall St.,

Thence westerly along the south line of W. Wall St. about 300 ft. to a point at the southeast corner of the intersection of W. Wall St. and S. Main St.,

Thence southerly along the east line of S. Main St. about 380 ft. to a point at the southeast corner of the intersection of S. Main St. and W. Missouri Ave.,

Thence westerly along the south line of W. Missouri Ave. about 1140 ft. to the place of beginning and containing about 49.50 acres.

Figure 11-1a-3.1




11-1a-4 - Definitions.

A. Except as otherwise provided in this Section, the words and terms used in this Chapter and in the application of this Chapter shall have the same meanings given those words and terms in Chapter 1 of this Title, as amended.

B. As used in this Chapter and in the application of this Chapter:

1. *Extended Hours Area* has the same meaning given that term in Section 105.06 of the Texas Alcoholic Beverage Code, as amended.

2. *Restaurant or Cafeteria, with Drive-Through Window or Curb Service* means a business, with drive-through window or curb service, that:

   a. operates its own permanent food service facility with commercial cooking equipment on its premises; and

   b. prepares and offers to sell multiple entrees for consumption on or off the premises.

   To the extent that a provision of this Chapter applies to both a Restaurant or Cafeteria, with Drive-Through Window or Curb Service and a Restaurant or Cafeteria, without Drive-Through Window or Curb Service, such business may be referred to as a Restaurant.

3. *Restaurant or Cafeteria, without Drive-Through Window or Curb Service* means a business, without drive-through window or curb service, that:

   a. operates its own permanent food service facility with commercial cooking equipment on its premises; and

   b. prepares and offers to sell multiple entrees for consumption on or off the premises.

   To the extent that a provision of this Chapter applies to both a Restaurant or Cafeteria, with Drive-Through Window or Curb Service and a Restaurant or Cafeteria, without Drive-Through Window or Curb Service, such business may be referred to as a Restaurant.

4. *Restaurant Patio* means an outdoor space connected to a Restaurant where food is served from the Restaurant to customers and eaten on the premises. A Restaurant Patio may be unenclosed or enclosed and, if authorized in writing by the City, may occupy a portion of the public right-of-way adjacent to the Restaurant.

11-1a-5 - Compliance with the Zoning Ordinance required.

Except as expressly provided in this Chapter, property shall be developed and used in accordance with the regulations of Chapter 1 of this Title that are applicable to the zoning district in which the property is located as shown on the Zoning Map.

11-1a-6 - Permitted uses.

A. Property may be used for uses that are permitted in the property's zoning district in accordance with Chapter 1 of this Title; provided, however, that in the event of a conflict between a use's definition contained in Section 11-1a-4 and the same use's definition contained in Chapter 1 of this Title, the definition contained in Section 11-1a-4 shall control.

B. In addition to the uses that are permitted by Subsection A hereof, property may be used for:

1. Alcoholic Beverages Sales for On-Premises Consumption;
2. Bar;
3. Brewery, Local;
4. Brewery, Regular;
5. Distillery;
6. Lounge or Nightclub;
7. Restaurant or Cafeteria, with Drive-Through Window or Curb Service, as defined in Section 11-1a-4;
8. Restaurant or Cafeteria, without Drive-Through Window or Curb Service, as defined in Section 11-1a-4; and
9. Winery.

11-1a-7 - Use of the public right-of-way by restaurants.

A. A Restaurant Patio shall not be located in any portion of the public right-of-way unless the owner or operator of the Restaurant to which the Restaurant Patio is connected obtains written authorization from the City to so use the public right-of-way. To the extent that a Restaurant Patio is located in the public right-of-way, written authorization from the City to so use the public right-of-way may include authorization to use such portion of the public right-of-way for Alcoholic Beverages Sales for On-Premises Consumption. In the event of a conflict between this Subsection and any other ordinance, this Subsection shall control.

B. A Restaurant Patio shall not occupy the public right-of-way in a manner that causes less than four (4) feet of clear sidewalk space to be available for pedestrians to use.

11-1a-8 - Extended hours of alcoholic beverage sales.

The Centennial Entertainment Overlay District is an Extended Hours Area. Alcoholic beverages may be sold within the Centennial Entertainment Overlay District in accordance with this Section during the extended hours of sale provided in Section 105.03 and 105.05 of the Texas Alcoholic Beverage Code, as amended.

11-1a-9 - Offense and penalty.

Any person, firm, corporation, or other entity who violates, disobeys, or otherwise fails to comply with or who resists the enforcement of any of the provisions of this Chapter shall be guilty of a misdemeanor and shall be fined not more than $2,000.00 for each violation. Each day that a violation exists shall constitute a separate and distinct offense.

**SECTION TWO.** That the Zoning Map is hereby amended in accordance with Section One of this Ordinance.

**SECTION THREE.** That the provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter

as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION FOUR.** That the provisions of this ordinance pertaining to the sale of alcoholic beverages apply only to property located within the Centennial Entertainment Overlay District, as defined in this ordinance. The portions of Title XI, "Planning and Development", Chapter 1, "Zoning" of the City Code of Midland, Texas, that existed on June 30, 2019, and that pertained to the regulation of the sale of alcoholic beverages (the "Preexisting Alcoholic Beverage Regulations") were validated by acts of the Texas Legislature. *See* Tex. Rev. Civ. Stat. Ann. arts. 974d-36 § 1, 974d-37 § 1 (Vernon Supp. 2000); Act of May 27, 1985, 69th Leg., R.S., ch. 815, § 2, 1985 Tex. Gen. Laws 2872, repealed by Act of May 1, 1987, 70th Leg., ch. 149, 1987 Tex. Gen. Laws 707, 1307. To the extent that any provision of the current Title XI, "Planning and Development", Chapter 1, "Zoning Ordinance" of the City Code of Midland, Texas, pertaining to the regulation of the sale of alcoholic beverages conflicts with the Preexisting Alcoholic Beverage Regulations or was not validated by an act of the Texas Legislature, such provision shall not be effective, and the applicable provision of the Preexisting Alcoholic Beverage Regulations shall remain in effect and shall be deemed to have not been repealed or superseded.

**SECTION FIVE.** That if any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION SIX.** That the penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code

of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION SEVEN.** That the effective date of this ordinance is December 1, 2023.

**SECTION EIGHT.** That the City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2023; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2023, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Cristina Burns, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

# City Council Meeting

**Item Number:** 36

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Rolandrea Russell, Assistant Director

**Subject:** AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITHOUT TERM FOR LOT 1, BLOCK 1, CLAYDESTA PLAZA NORTH, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF NORTH BIG SPRING STREET AND WEST 250 LOOP NORTH), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR COMMERCIAL AMUSEMENT (OUTDOORS); MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DISTRICT 3) (DEVELOPMENT SERVICES)

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**Purpose:**

The applicant, Christopher Sean Elphick is requesting a Specific Use Designation without Term for an outdoor entertainment facility defined in the Zoning Ordinance as Amusement, Commercial (outdoor).

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

This request has no significant financial impact to the City.

**Current Zoning:**

RR, Regional Retail District.

**Surrounding Zoning and Land Use:**

The properties to the north are zoned PD, Planned Development District for a Recreation Center (Ordinance 7322) and RR, Regional Retail District, and the location of a golf course and sports complex. The properties to the east are zoned RR, Regional Retail District, and the location of a retail shopping plaza and gas station. The property to the south is zoned PD, Planned Development District for an Office Center (Ordinance 5695). The properties to the west are zoned 2-F, Two-Family Dwelling District (Duplex) District and SF-1, Single-Family Dwelling District, and the location of Midland Airpark.

**Analysis:**

The applicant, Christopher Sean Elphick, is requesting a Specific Use Designation (SUDwo) without Term for Amusement, Commercial (outdoor).

On September 14, 2021, City Council approved the applicant's original SUDs for the mobile food vendor park (Ordinance 10232) and the sale of all alcoholic beverages (Ordinance 10233), but the applicant has since expanded on the property, added concerts and events, and its alcoholic beverages SUD expired on September 14, 2023. On June 14, 2022, a Special Exception was allow granted by City Council to allow the parking lot be paved with asphalt millings as opposed to the standard of asphalt or concrete for three (3) years.

The new SUDwo will allow concerts, ticketed events, cook-offs, private events and charity events to take place on the property with an additional Temporary Land Use (TLU) permit. The applicant has also applied for an SUDwo for a mobile food vendor park, and SUD to renew the sale of alcoholic beverages for on-premises consumption on the property. The TLU will also be required per Section 11-1-4.04.A.5.e of the City Code which prohibits exterior auditory devices for the concerts, and 11-1-4.05.A.8 which prohibits any temporary activity involving music after 10:00p.m. or that includes the sale of alcoholic beverages.

The site plan (Exhibit A) provided shows the property and associated buildings and parking area after full built-out.

This project has been circulated to all City departments for review. Below are the department comments:

**Engineering: (Approved)**

No objections. [For the Applicant's information only.]

**Transportation: (Approved)**

No objections. [For the Applicant's information only.]

**Building Code: (Approved)**

Several of the permanent structures have been put into place without permits and inspections. The SUD request is reasonable; however, my approval of the SUD is contingent upon all structures having proper permits pulled and all inspections performed. These non-permitted structures include a mobile home, office/shed, shipping containers, shade structures, fencing, signage, and two large tanks used as decoration that sit on either side of the stage. The owners/operators of this property are also looking to increase upon the original SUD for larger events, once a maximum occupant load is given there will need to be a recalculation for permanent restroom facilities which could also trigger the need for additional permits and inspections. Temporary sanitary facilities are not acceptable to cover the increased occupant load, must be permanent. Each one of the individual unpermitted structures must have their own permit which calls for a separate permit submittal for each one. Each submittal will require a completed permit application, site plan that reflects the location of the structure and related distance measurements to adjoining structures and property lines, floor plans of the structure or detailed drawings of their construction, written scope of work or structure specifications, and any other information that can help describe the situation. These permits will need to be applied for by a licensed and bonded contractor. All permitted structures require inspections, those that are just now being permitted will also need a full set of inspections. If the structures are completed and, in a state, to where all inspections cannot be made, a third-party inspector such as a Texas licensed structural engineer, will need to make the inspections and give to the Building Official a signed and stamped letter stating that the permitted structure in question is of sound construction and poses no threat to life safety and will not compromise the site in any way. It is recommended that until the new SUD is approved, the previously approved SUD's with the original occupant load of 400 persons should be strictly adhered to. Many complaints from citizens regarding the amount of dirt/dust coming from the parking areas around the site have been made to our department. Asphalt Millings are going to be required by the City of Midland Planning division for the parking surfaces so this will eventually be addressed. Before the site is covered with millings, a plan must be put into place to control blowing dust. Frequent watering of the ground before automobile traffic comes to the site before and during an event is highly recommended. Any event that takes place that will go over the current or future occupancy load and/or deviates from the location's intended use will need to apply for a TLU on top of the SUD. We cannot provide an updated occupant load with the Alcohol Serviceable Area SQ FT alone, we must have each public occupied area defined by what kind of seating/standing area there will be and the SQ FT of each of those areas.

**Fire: (Approved)**

The International Fire Code does not have provisions for permanent event site to operate as "Temporary". A Fire Lane and the internal access driveway are required that is capable of supporting 75,000 lbs. constructed of an all-weather surface that provides access within 150' of all portions. The fire lane must be marked in accordance with fire code requirements. All future events should be permitted under a separate TLU.

**Oil and Gas: (Approved)**

No objections.

**Planning: (Approved)**

The request is in compliance with the *Tall City Tomorrow Comprehensive Plan, Chapter 6-Character Plan Goal 4,* "Encourage the development of places where Midland residents can gather and socialize to build connections" (Tall City Tomorrow page 137). The proposed Specific Use Designation without Term for Outdoor Amusement, Commercial (outdoors) is consistent with the Tall City Comprehensive Plan policies.

The Planning and Zoning Commission recommended approval of this request at the October 16, 2023 regulation meeting.

Staff recommends approval of the request of the Specific Use Designation without Term for Outdoor Amusement, Commercial (outdoors), subject to Conditions A to L.

**Letters of Objection:**

As of November 3, 2023, staff has received no letters of objection for this request.

**Conditions:**

**A. That the Establishment shall significantly conform to the site plan, which is attached hereto as Exhibit "A" and incorporated herein for all purposes.**

**B. That the operator of the Establishment shall place a sign at the driveway notifying drivers that a left turn onto North Big Spring Street is prohibited.**

**C. That the operator of the Establishment shall provide a 20-foot-wide fire lane around the facility capable of supporting 75,000 lbs. and constructed of an all-weather surface that provides access within 150' of all portions. The fire lane must be marked in accordance with fire code requirements.**

**D. That the days and hours of operation of the Establishment shall be limited to Monday through Sunday from 11: 00 a.m. to 12: 00 p.m. (midnight).**

**E. That the occupancy of the Establishment shall not exceed the maximum occupancy determined by the Building Code and Fire Code.**

**F. That the Establishment shall meet the requirements of the Fire Department and the Code Administration Division.**

**G. That the development and operation of the Establishment shall conform to Section 11-1-4.04.A.5 of the City Code and all other applicable laws, ordinances, and regulations.**

**H. The operator of the Establishment shall notify the City's Planning Division in writing of the name, address, telephone number, and e-mail address of the person who has been designated on-site manager of the Establishment who is responsible**

**for the orderly organization of the Establishment, the cleanliness of the Property, and the Establishment's compliance with all applicable rules and regulations during business hours. If the City' s Planning Division is not so notified, it shall be presumed that Christopher Sean Elphick is the on-site manager of the Establishment.**

**I. That the operator of the Establishment shall obtain a Certificate of Occupancy prior to commencing operation of the Establishment to ensure that the conditions of this Specific Use Designation Without Term are satisfied.**

**J. The operator shall install a three-foot tall fence along the West Loop 250 North frontage to prevent vehicular traffic from entering or exiting the site from West Loop 250 North.**

**K. To the extent that events on the property require a temporary land use permit under Section 11-1-4.05 of the City Code, or to the extent that exterior auditory devices are used, the applicant shall obtain a temporary land use permit.**

**L. With respect to parking the applicant shall comply with respect the Ordinance 10320 or any superseding.**

**Attachments:**

Site Plan (Exhibit A)
Application
Maps



**ORDINANCE NO. _____**

**AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITHOUT TERM FOR LOT 1, BLOCK 1, CLAYDESTA PLAZA NORTH, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF NORTH BIG SPRING STREET AND WEST 250 LOOP NORTH), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR COMMERCIAL AMUSEMENT (OUTDOORS); MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION**

**WHEREAS**, the City Planning and Zoning Commission and the Governing Body of the City of Midland, Texas, in compliance with the City Charter, the City Code, and State law, have given the requisite notices by United States mail, publication and otherwise; and after holding due hearings affording a full and fair hearing to all of the property owners generally, and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body of the City of Midland finds that the public convenience will be best served by granting a Specific Use Designation Without Term for Lot 1, Block 1, Claydesta Plaza North, Section 4, City and County of Midland, Texas (the "Property") as set out hereinafter;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the Zoning District Map of the City of Midland, Texas, is hereby amended to grant the Property a Specific Use Designation Without Term for commercial amusement (outdoors) (the "Specific Use"), together with the uses permitted in the present RR, Regional Retail District. As used herein, the "Establishment" is any portion of the Property or facility on the Property that is used for the Specific Use.

**SECTION TWO.** That the Property shall be subject to the following conditions and

restrictions:

A. That the Establishment shall significantly conform to the site plan, which is attached hereto as Exhibit "A" and incorporated herein for all purposes.

B. That the operator of the Establishment shall place a sign at the driveway notifying drivers that a left turn onto North Big Spring Street is prohibited.

C. That the operator of the Establishment shall provide a 20-foot-wide fire lane around the Establishment that provides access within 150 feet of all portions of the Establishment. The fire lane shall be capable of supporting 75,000 pounds and shall have an all-weather surface. The fire lane must be marked in accordance with the Fire Code..

D. That the days and hours of operation of the Establishment shall be limited to Monday through Sunday from 11:00 a.m. to 12:00 a.m. (midnight).

E. That the occupancy of the Establishment shall not exceed the maximum occupancy determined by the Building Code and Fire Code.

F. That the Establishment shall meet the requirements of the Fire Department and the Code Administration Division..

G. That the sale and on-premises consumption of alcoholic beverages shall be prohibited on the Property unless a Specific Use Designation With Term for the sale and on-premises consumption of alcoholic beverages is approved and effective for the Property.

H. That the development and operation of the Establishment shall conform to Section 11-1-4.04.A.5 of the City Code and all other applicable laws, ordinances, and regulations.

I. That the operator of the Establishment shall notify the City's Planning Division in writing of the name, address, telephone number, and e-mail address of the person who has been designated on-site manager of the Establishment who is responsible for the orderly organization of the Establishment, the cleanliness of the Property, and the Establishment's compliance with all applicable rules and regulations during business hours. If the City's Planning Division is not so notified, it shall be presumed that Christopher Sean Elphick is the on-site manager of the Establishment.

J. That the operator of the Establishment shall install a three-foot-tall fence along the West Loop 250 North frontage to prevent vehicular traffic from entering or exiting the site from West Loop 250 North.

K. That to the extent that Section 11-1-4.05 of the City Code requires a temporary land use permit in order for an event to be held on the Property, or to the extent that any exterior auditory devices will be used on the Property, the operator of the Establishment shall obtain a temporary land use permit prior to holding the event or using exterior auditory devices.

L. That with respect to parking, the applicant shall comply with Ordinance No.

10320 or any ordinance that supersedes Ordinance No. 10320.

**SECTION THREE.** The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances, inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION FOUR.** If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION FIVE.** The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION SIX.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2023; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the

following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2023, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

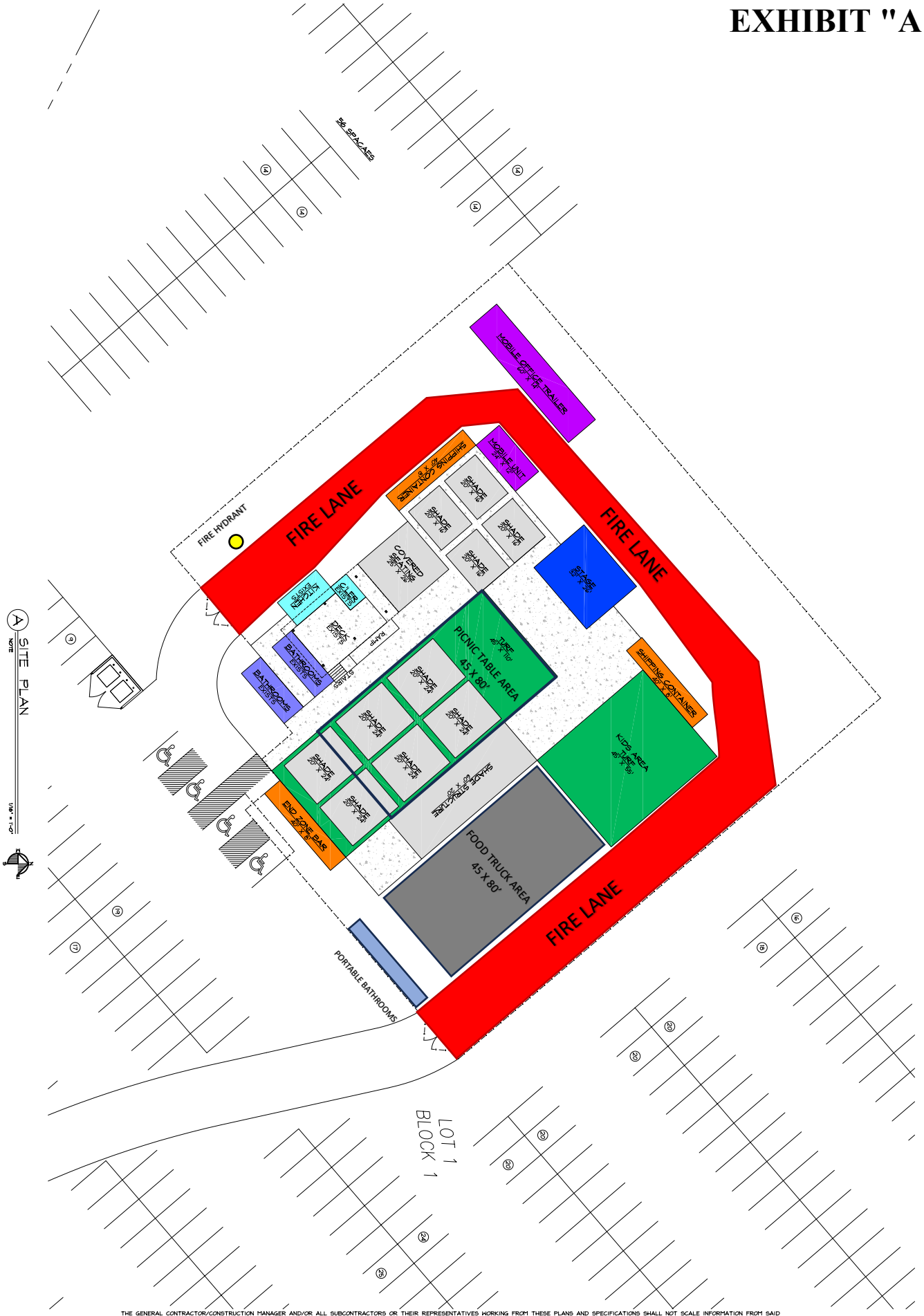
APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Cristina Burns, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

# EXHIBIT "A"




THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER AND/OR ALL SUBCONTRACTORS OR THEIR REPRESENTATIVES WORKING FROM THESE PLANS AND SPECIFICATIONS SHALL NOT SCALE INFORMATION FROM SAID DRAWINGS, BUT MUST CONTACT THE DESIGNER REGARDING MEASUREMENTS. IF SUCH MEASUREMENTS DO NOT APPEAR CORRECT OR ADD UP CORRECTLY TO THE INDICATED SIZE. IT SHALL ALSO BE THE RESPONSIBILITY OF THE G.C./C.M. AND THE SUBCONTRACTORS TO READ ALL NOTES AND TEXT ON THE DRAWINGS PRIOR TO BIDDING AND OR PROCEEDING WITH ANY WORK. THE G.C./C.M. SHALL COORDINATE ANY DISCREPANCIES WITH ALL SUBCONTRACTORS PRIOR TO PROCEEDING WITH ANY WORK AND CONTACT THE DESIGNER REGARDING SAID DISCREPANCIES PRIOR TO INSTALLATION OF ANY CONSTRUCTION MATERIALS.

SHEET NO. S-2 OF 25 SHEETS

BY: JM DRAFTING & DESIGN
P.O. BOX 4091 MIDLAND, TX. 79704
C: (432) 425-5297
E-MAIL: jmertink@gmail.com

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NEW SITE PLAN FOR: THE TAILGATE
4401 N BIG SPRING ST
MIDLAND TEXAS

JOB # JM23042

DATE ISSUED: JUNE 15, 2023
REVISED:

DRAWN BY: JAM

THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER AND/OR ALL SUBCONTRACTORS OR THEIR REPRESENTATIVES WORKING FROM THESE PLANS AND SPECIFICATIONS SHALL NOT SCALE INFORMATION FROM SAID DRAWINGS, BUT MUST CONTACT THE DESIGNER REGARDING MEASUREMENTS. IF SUCH MEASUREMENTS DO NOT APPEAR CORRECT OR ADD UP CORRECTLY TO THE INDICATED SIZE. IT SHALL ALSO BE THE RESPONSIBILITY OF THE G.C./C.M. AND THE SUBCONTRACTORS TO READ ALL NOTES AND TEXT ON THE DRAWINGS PRIOR TO BIDDING AND OR PROCEEDING WITH ANY WORK. THE G.C./C.M. SHALL COORDINATE ANY DISCREPANCIES BETWEEN SUBCONTRACTORS PRIOR TO PROCEEDING WITH ANY WORK AND CONTACT THE DESIGNER REGARDING SAID DISCREPANCIES PRIOR TO INSTALLATION OF ANY CONSTRUCTION MATERIALS.

SHEET NO. S-1 OF 25 SHEETS

BY: J M DRAFTING & DESIGN
P.O. BOX 4091 MIDLAND, TX. 79704
C: (432) 425-5297
E-MAIL: jmmertink@gmail.com

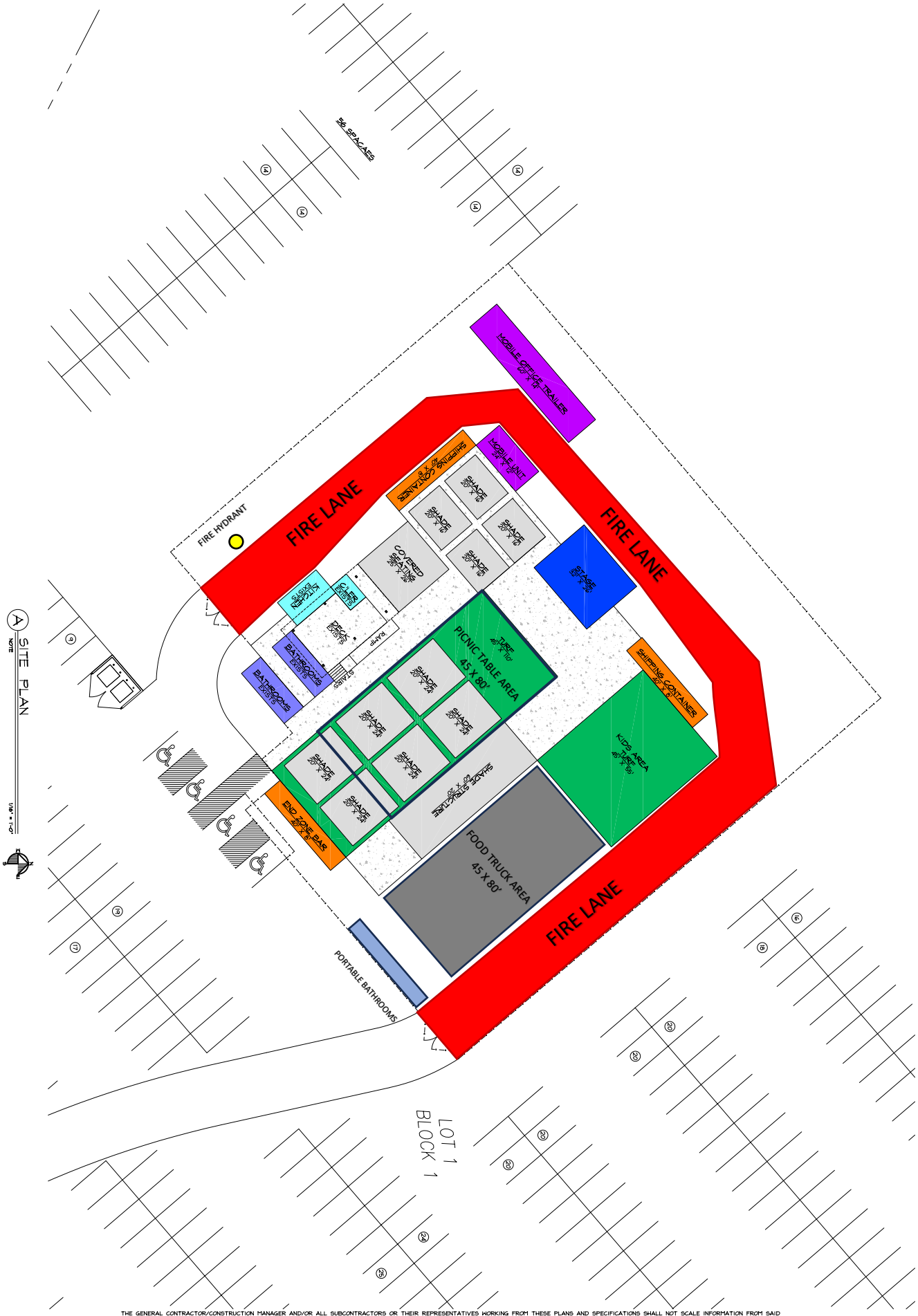
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NEW SITE PLAN FOR:
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4401 N BIG SPRING ST
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A SITE PLAN
NOTE

THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER AND/OR ALL SUBCONTRACTORS OR THEIR REPRESENTATIVES WORKING FROM THESE PLANS AND SPECIFICATIONS SHALL NOT SCALE INFORMATION FROM SAID DRAWINGS, BUT MUST CONTACT THE DESIGNER REGARDING MEASUREMENTS. IF SUCH MEASUREMENTS DO NOT APPEAR CORRECT OR ADD UP CORRECTLY TO THE INDICATED SIZE. IT SHALL ALSO BE THE RESPONSIBILITY OF THE G.C./C.M. AND THE SUBCONTRACTORS TO READ ALL NOTES AND TEXT ON THE DRAWINGS PRIOR TO BIDDING AND OR PROCEEDING WITH ANY WORK. THE G.C./C.M. SHALL COORDINATE ANY DISCREPANCIES BETWEEN SUBCONTRACTORS PRIOR TO PROCEEDING WITH ANY WORK AND CONTACT THE DESIGNER REGARDING SAID DISCREPANCIES PRIOR TO INSTALLATION OF ANY CONSTRUCTION MATERIALS.

SHEET NO.
S-2
OF 25 SHEETS

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NEW SITE PLAN FOR:
THE TAILGATE
4401 N BIG SPRING ST
MIDLAND TEXAS

JOB # JM23042

DATE ISSUED:
JUNE 15, 2023
REVISED:

DRAWN BY: JAM

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SHEET NO. S-1 OF 25 SHEETS

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NEW SITE PLAN FOR:
THE TAILGATE
4401 N BIG SPRING ST
MIDLAND TEXAS

JOB # JM23043

DATE ISSUED:
JUNE 15, 2023
REVISED:

DRAWN BY: JAM
JOB # JM23043

MIDLAND Planning Division

**Specific Use Designation Application (Non-Alcohol)**

Case Number: SUDw-23-0035

Ord. Number: _____

| | | | |
|---|---|---|---|
| **Applicant** *(if acting as Agent, see affidavit on page 2)* Printed Name: Christopher Sean Elphick | | Phone (432) 553 9250 Email Sean@thetailgatemidland.com | |
| Address 11 Marabella Ct | City Midland | State TX | Zip 79705 |
| **Property Owner** Printed Name: H-E-B, LP San Antonio | | Phone (210) 938-8766 Email scott.ben@heb.com | |
| Address P.O. Box 839999 | City ~~Midland~~ | State TX | Zip 78283 |
| **Representative** *(if different from Applicant or Property Owner)* Firm: _____ Printed Name: | | Phone ( ) Email | |
| Address | City | State | Zip |

**Type of Permit:** *For Office Use Only* ☐ with Term ☑ without Term

**Is there any Code Enforcement action pending on property?** ☐ Yes ☐ No

**Street Address:** 4401 N. Big Spring St.

**Legal Description** Lot: 1 Block: 1 Subdivision: Cay Desta Plaza North, Section 7

**Current Zoning:** Regional Retail (RR)

**Maximum Floor Area:** 17,038 **Maximum Occupancy:** 1,000

**Proposed hours and days of use or operation:** Thursday - Sunday 11am - 12am

**Reason for request:** Concerts, Ticketed Events, Cook-Offs, Food Trucks Private Events, Charity Fundraisers

**Applicant's opinion as to why the request will not adversely affect the public safety, health, morals, general welfare, and convenience:** The Tailgate provides a safe and fun atmosphere for the community to enjoy outdoor Events

**Submittal and Fees**

**Items to be submitted with this application form:**

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Site Plan showing
  - Parking (if applicable)
  - Building Footprint
- Digital Copies of Site Plan (PDF/JPEG)

**Signatures**

Applicant (signature): [signature] Date 9/19/23

Applicant (printed): Christopher Sean Elphick

Property Owner (signature): [signature] Date 9/19/23

Property Owner (printed) Benjamin Scott, SVP - Real Estate and SCP, H-E-B, LP

*The Specific Use Designation shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland*

If an agent is authorized by the property owner to file and execute the application on behalf of the property owner, the agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared Christopher Sean Elphick who, being by me duly sworn, upon oath says: That (s)he is authorized by H-E-B, LP. the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

[signature]
Authorized Agent (*signature*)

Subscribed and sworn to before me, this 19 day of September, 2023, to certify which witness my hand and seal of office.

ARIEL MARANDA HERRERA
Notary ID #134115232
My Commission Expires
December 22, 2026

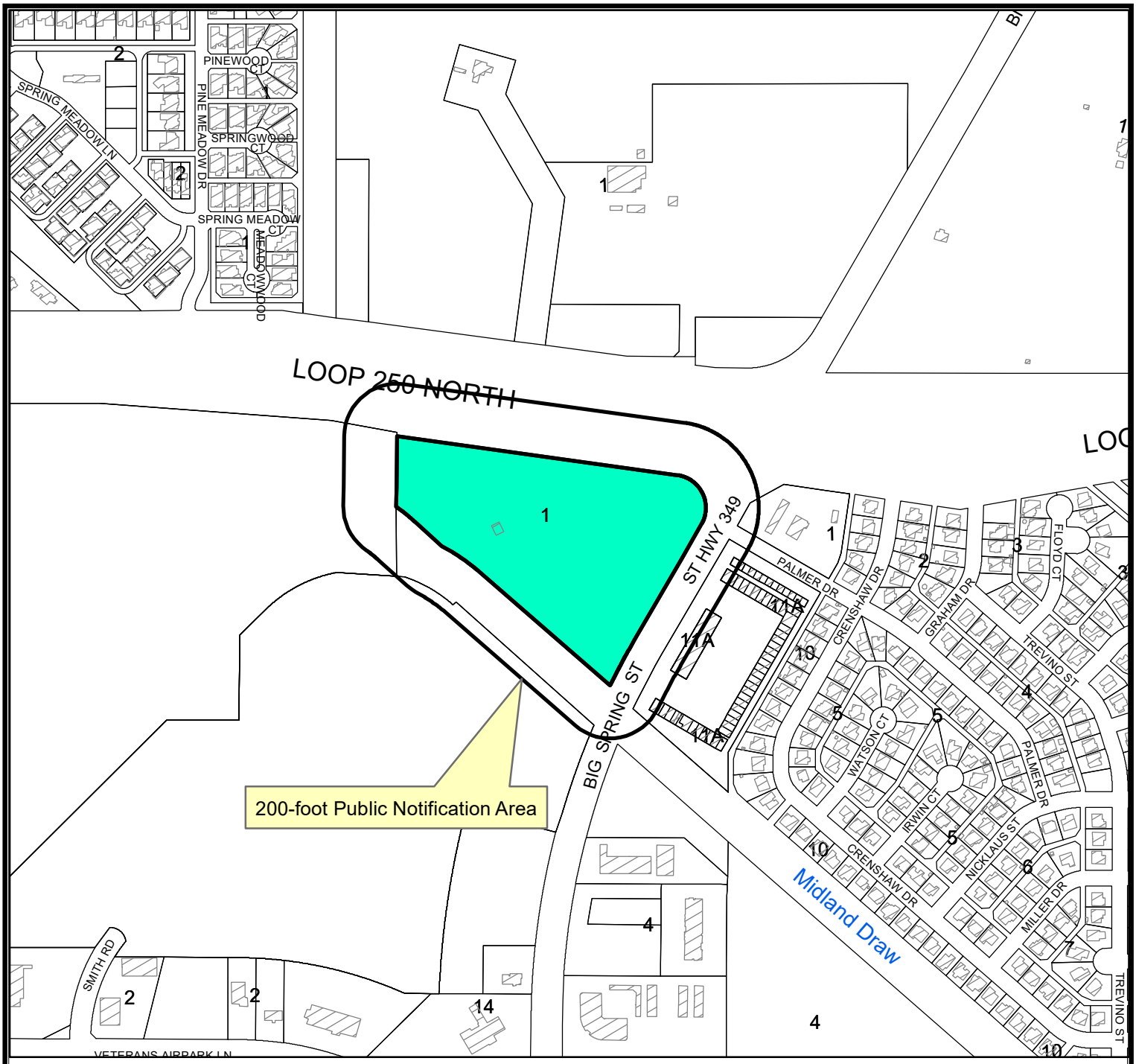
[signature]
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

**FOR OFFICE USE ONLY**

- ☑ Property Owner Authorization
- ☑ Application Fee invoice 00090980
- Check # card
- ☑ Dimensioned Site Plan
- ☐ Site Plan in Digital Format (PDF/JPEG)

Received By: Jeff Fisher Date: 9-19-2023

****Application will not be considered for scheduling until reviewed by a planner.****



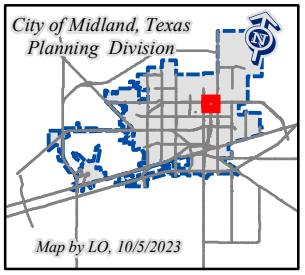

# LOCATION MAP

**SUDwo-23-0035** **Scale: 1" = 6,492'**

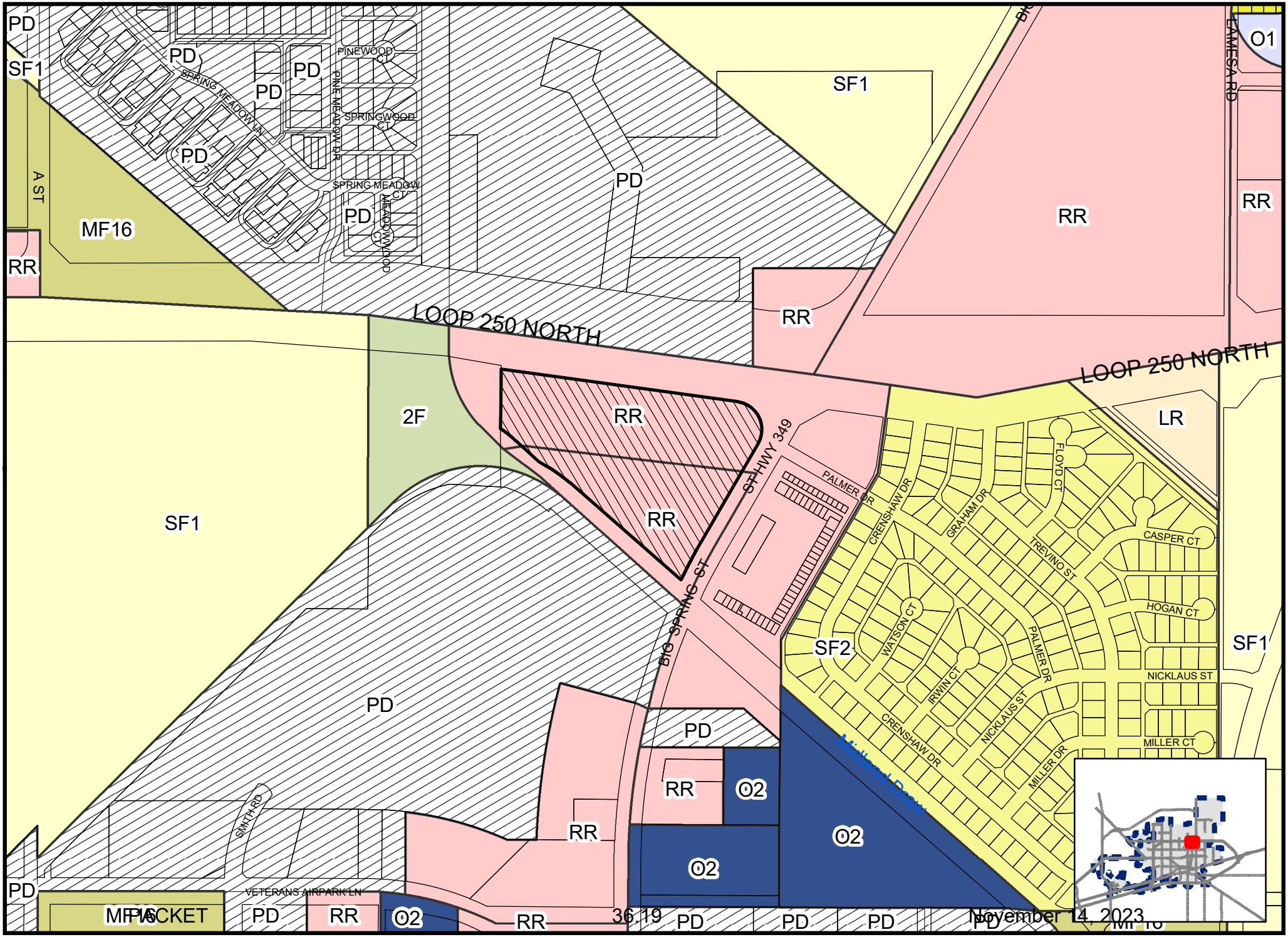
Consider a request by Christopher Sean Elphick for a Specific Use Designaion without term for Amusement, Commercial (outdoors) on Lot 1, Block 1, Claydesta Plaza North, Section 4, City and County of Midland, Texas.
Generally located on the southwest corner of the intersection of State Highway 349 and Loop 250 North (Council District 3)

**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




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THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND PRIOR IS IT DESIGNED TO BE USED AS THE ONLY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.




*Map By LO, 10/13/2023*

**SUDwo-23-0035**

**Scale: 1" = 6,466'**

# ZONING MAP

November 14, 2023

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THE
TAILGATE
TRAILGATE
ProPower




YOUNG'S
BUILDING SYSTEMS
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PALOMA
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PriorityPower

# City Council Meeting

**Item Number:** 37

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Rolandrea Russell, Assistant Director

**Subject:** AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITHOUT TERM FOR LOT 1, BLOCK 1, CLAYDESTA PLAZA NORTH, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF NORTH BIG SPRING STREET AND WEST 250 LOOP NORTH), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR A MOBILE FOOD VENDOR PARK; MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DISTRICT 3) (DEVELOPMENT SERVICES)

---

**Purpose:**

The applicant, Christopher Sean Elphick is requesting a Specific Use Designation without Term for a mobile food vendor park.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

This request has no significant financial impact to the City.

**Current Zoning:**

RR, Regional Retail District.

**Surrounding Zoning and Land Use:**

The properties to the north are zoned PD, Planned Development District for a Recreation Center (Ordinance 7322) and RR, Regional Retail District, and the location of a golf course and sports complex. The properties to the east are zoned RR, Regional Retail District, and the location of a retail shopping plaza and gas station. The property to the south is zoned PD, Planned Development District for an Office Center (Ordinance 5695). The properties to the west are zoned 2-F, Two-Family Dwelling District (Duplex) District and SF-1, Single-Family Dwelling District, and the location of Midland Airpark.

**Analysis:**

The applicant, Christopher Sean Elphick, is requesting a Specific Use Designation without Term for a Mobile Food Vendor Park.

On September 14, 2021, the City Council approved the applicant's original SUDs for the mobile food vendor park (Ordinance 10232) and the sale of all alcoholic beverages (Ordinance 10233), but the applicant has since expanded on the property, added concerts and events, and its alcoholic beverages SUD expired on September 14, 2023. On June 14, 2022, a Special Exception was granted by the City Council to allow the parking lot to be paved with asphalt millings as opposed to the standard of asphalt or concrete for three (3) years.

The new SUDwo will allow the expanded site plan for a mobile food vendor park. The applicant has also applied for an SUD to allow an outdoor commercial amusement facility
with associated concerts, ticketed events, cook-offs, private events, and charity events to take place on the property, and an SUD to renew the sale of alcoholic beverages for on-premises consumption on the property. A TLU will be required per Section 11-1-4.04.A.5.e of the City Code which prohibits exterior auditory devices for the concerts, and 11-1-4.05.A.8 which prohibits any temporary activity involving music after 10:00 p.m. or that includes the sale of alcoholic beverages.

The site plan (Exhibit A) provided shows the property and associated buildings and parking area after full built-out.

This project has been circulated to all City departments for review. Below are the department's comments:

**Engineering: (Approved)**

No objections. [For the Applicant's information only.]

**Transportation: (Approved with Conditions)**

A fence will be required to prevent attendees from driving over the Loop 250 frontage curb, which is a traffic safety concern.

**Building Code: (Approved with Conditions)**

Several of the permanent structures have been put into place without permits and inspections. The SUD request is reasonable; however, my approval of the SUD is contingent upon all structures having proper permits pulled and all inspections performed. These non-permitted structures include a mobile home, office/shed, shipping containers, shade structures, fencing, signage, and two large tanks used as decoration that sit on either side of the stage. The owners/operators of this property are also looking to increase upon the original SUD for larger events, once a maximum occupant load is given there will need to be a recalculation for permanent restroom facilities which could also trigger the need for additional permits and inspections. Temporary sanitary facilities are not acceptable to cover the increased occupant load, must be permanent. Each one of the individual unpermitted structures must have their own permit which calls for a separate permit submittal for each one. Each submittal will require a completed permit application, site plan that reflects the location of the structure and related distance measurements to adjoining structures and property lines, floor plans of the structure or detailed drawings of their construction, written scope of work or structure specifications, and any other information that can help describe the situation. These permits will need to be applied for by a licensed and bonded contractor. All permitted structures require inspections, those that are just now being permitted will also need a full set of inspections. If the structures are completed and, in a state, to where all inspections cannot be made, a third-party inspector such as a Texas licensed structural engineer, will need to make the inspections and give to the Building Official a signed and stamped letter stating that the permitted structure in question is of sound construction and poses no threat to life safety and will not compromise the site in any way. It is recommended that until the new SUD is approved, the previously approved SUD's with the original occupant load of 400 persons should be strictly adhered to. Many complaints from citizens regarding the amount of dirt/dust coming from the parking areas around the site have been made to our department. Asphalt Millings are going to be required by the City of Midland Planning division for the parking surfaces so this will eventually be addressed. Before the site is covered with millings, a plan must be put into place to control blowing dust. Frequent watering of the ground before automobile traffic comes to the site before and during an event is highly recommended. Any event that takes place that will go over the current or future occupancy load and/or deviates from the location's intended use will need to apply for a TLU on top of the SUD. We cannot provide an updated occupant load with the Alcohol Serviceable Area SQ FT alone, we must have each public occupied area defined by what kind of seating/standing area there will be and the SQ FT of each of those areas.

**Fire: (Approved with Conditions)**

The International Fire Code does not have provisions for permanent event site to operate as "Temporary". A Fire Lane and the internal access driveway are required that is capable of supporting 75,000 lbs. constructed of an all-weather surface that provides access within 150' of all portions. The fire lane must be marked in accordance with fire code requirements. All future events should be permitted under a separate TLU.

**Oil and Gas: (Approved)**

No objections.

**Planning: (Approved)**

The request is in compliance with the *Tall City Tomorrow Comprehensive Plan, Chapter 6-Character Plan Goal 4,* "Encourage the development of places where Midland residents can gather and socialize to build connections" (Tall City Tomorrow page 137). The Tailgate will create a vibrant atmosphere where residents can feel relaxed and enjoy alcoholic beverages with their food. The proposed SUDwo for a Mobile Food Vendor Park is consistent with the Tall City Comprehensive Plan policies.

The Planning and Zoning Commission recommended approval of this request at the October 16, 2023, regular meeting.

Staff recommends approval of the request of the Specific Use Designation without Term for a Mobile Food Vendor Park, subject to Conditions A to N.

**Letters of Objection:**

As of November 3, 2023, staff has received no letters of objection for this request.

**Conditions:**

**A. That the Establishment shall significantly conform to the site plan, which is attached hereto as Exhibit "A" and incorporated herein for all purposes.**

**B. That the operator of the Establishment shall place a sign at the driveway notifying drivers that a left turn onto North Big Spring Street is prohibited.**

**C. That the operator of the Establishment shall provide a 20-foot-wide fire lane around the facility capable of supporting 75,000 lbs. and constructed of an all-weather surface that provides access within 150' of all portions. The fire lane must be marked in accordance with fire code requirements.**

**D. That the days and hours of operation of the Establishment shall be limited to Monday through Sunday from 11: 00 a.m. to 12: 00 a.m. (midnight).**

**E. That the occupancy of the Establishment shall not exceed the maximum occupancy determined by the Building Code and Fire Code.**

**F. That the Establishment shall meet the requirements of the Fire Department and the Code Administration Division.**

**G. That the sale and on-premises consumption of alcoholic beverages shall be prohibited unless a Specific Use Designation With Term for the sale and on-premises consumption of alcoholic beverages is approved and effective.**

**H. That the development and operation of the Establishment shall conform to Section 11-1-4.04.A.14 of the City Code and all other applicable laws, ordinances, and regulations.**

**I. The operator of the Establishment shall notify the City's Planning Division in writing of the name, address, telephone number, and e-mail address of the person who has been designated on-site manager of the Establishment who is responsible for the orderly organization of the Establishment, the cleanliness of the Property, and the Establishment's compliance with all applicable rules and regulations during business hours. If the City's Planning Division is not so notified, it shall be presumed that Christopher Sean Elphick is the on-site manager of the Establishment.**

**J. That the operator of the Establishment shall obtain a Certificate of Occupancy prior to commencing operation of the Establishment to ensure that the conditions of this Specific Use Designation Without Term are satisfied.**

**K. The operator shall install a three-foot-tall fence along the West Loop 250 North frontage to prevent vehicular traffic from entering or exiting the site from West Loop 250 North.**

**L. To the extent that events on the property require a temporary land use permit under Section 11-1-4.05 of the City Code, or to the extent that exterior auditory devices are used, the applicant shall obtain a temporary land use permit.**

**M. With respect to parking the applicant shall comply with respect the Ordinance 10320 or any superseding.**

**N. That the above conditions supersede the original conditions stipulated in Ordinance 10232.**

**Attachments:**

Site Plan (Exhibit A)
Application
Maps



City Manager's Office

**ORDINANCE NO. _____**

**AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITHOUT TERM FOR LOT 1, BLOCK 1, CLAYDESTA PLAZA NORTH, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF NORTH BIG SPRING STREET AND WEST 250 LOOP NORTH), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR A MOBILE FOOD VENDOR PARK; MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION**

**WHEREAS**, the City Planning and Zoning Commission and the Governing Body of the City of Midland, Texas, in compliance with the City Charter, the City Code, and State law, have given the requisite notices by United States mail, publication and otherwise; and after holding due hearings affording a full and fair hearing to all of the property owners generally, and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body of the City of Midland finds that the public convenience will be best served by granting a Specific Use Designation Without Term for Lot 1, Block 1, Claydesta Plaza North, Section 4, City and County of Midland, Texas (the "Property") as set out hereinafter;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the Zoning District Map of the City of Midland, Texas, is hereby amended to grant the Property a Specific Use Designation Without Term for a mobile food vendor park, together with the uses permitted in the present RR, Regional Retail District.

**SECTION TWO.** That the Property shall be subject to the following conditions and restrictions:

A. That the Establishment shall significantly conform to the site plan, which is attached hereto as Exhibit "A" and incorporated herein for all purposes.

B. That the operator of the Establishment shall place a sign at the driveway notifying drivers that a left turn onto North Big Spring Street is prohibited.

C. That the operator of the Establishment shall provide a 20-foot-wide fire lane around the Establishment that provides access within 150 feet of all portions of the Establishment. The fire lane shall be capable of supporting 75,000 pounds and shall have an all-weather surface. The fire lane must be marked in accordance with the Fire Code.

D. That the days and hours of operation of the Establishment shall be limited to Monday through Sunday from 11:00 a.m. to 12:00 a.m. (midnight).

E. That the occupancy of the Establishment shall not exceed the maximum occupancy determined by the Building Code and Fire Code.

F. That the Establishment shall meet the requirements of the Fire Department and the Code Administration Division.

G. That the sale and on-premises consumption of alcoholic beverages shall be prohibited on the Property unless a Specific Use Designation With Term for the sale and on-premises consumption of alcoholic beverages is approved and effective for the Property.

H. That the development and operation of the Establishment shall conform to Section 11-1-4.04.A.14 of the City Code and all other applicable laws, ordinances, and regulations.

I. That the operator of the Establishment shall notify the City's Planning Division in writing of the name, address, telephone number, and e-mail address of the person who has been designated on-site manager of the Establishment who is responsible for the orderly organization of the Establishment, the cleanliness of the Property, and the Establishment's compliance with all applicable rules and regulations during business hours. If the City's Planning Division is not so notified, it shall be presumed that Christopher Sean Elphick is the on-site manager of the Establishment.

J. That the operator shall install a three-foot-tall fence along the West Loop 250 North frontage to prevent vehicular traffic from entering or exiting the site from West Loop 250 North.

K. That to the extent that Section 11-1-4.05 of the City Code requires a temporary land use permit in order for an event to be held on the Property, or to the extent that any exterior auditory devices will be used on the Property, the operator of the Establishment shall obtain a temporary land use permit prior to holding the event or using exterior auditory devices.

L. That the operator of the Establishment shall obtain a Certificate of Occupancy prior to commencing operation of the Establishment to ensure that the conditions of this Specific Use Designation Without Term are satisfied.

M. That with respect to parking, the applicant shall comply with Ordinance No. 10320 or any ordinance that supersedes Ordinance No. 10320.

N. That this ordinance shall supersede Ordinance No. 10232.

**SECTION THREE.** The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances, inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION FOUR.** If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION FIVE.** The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION SIX.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2023; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2023, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

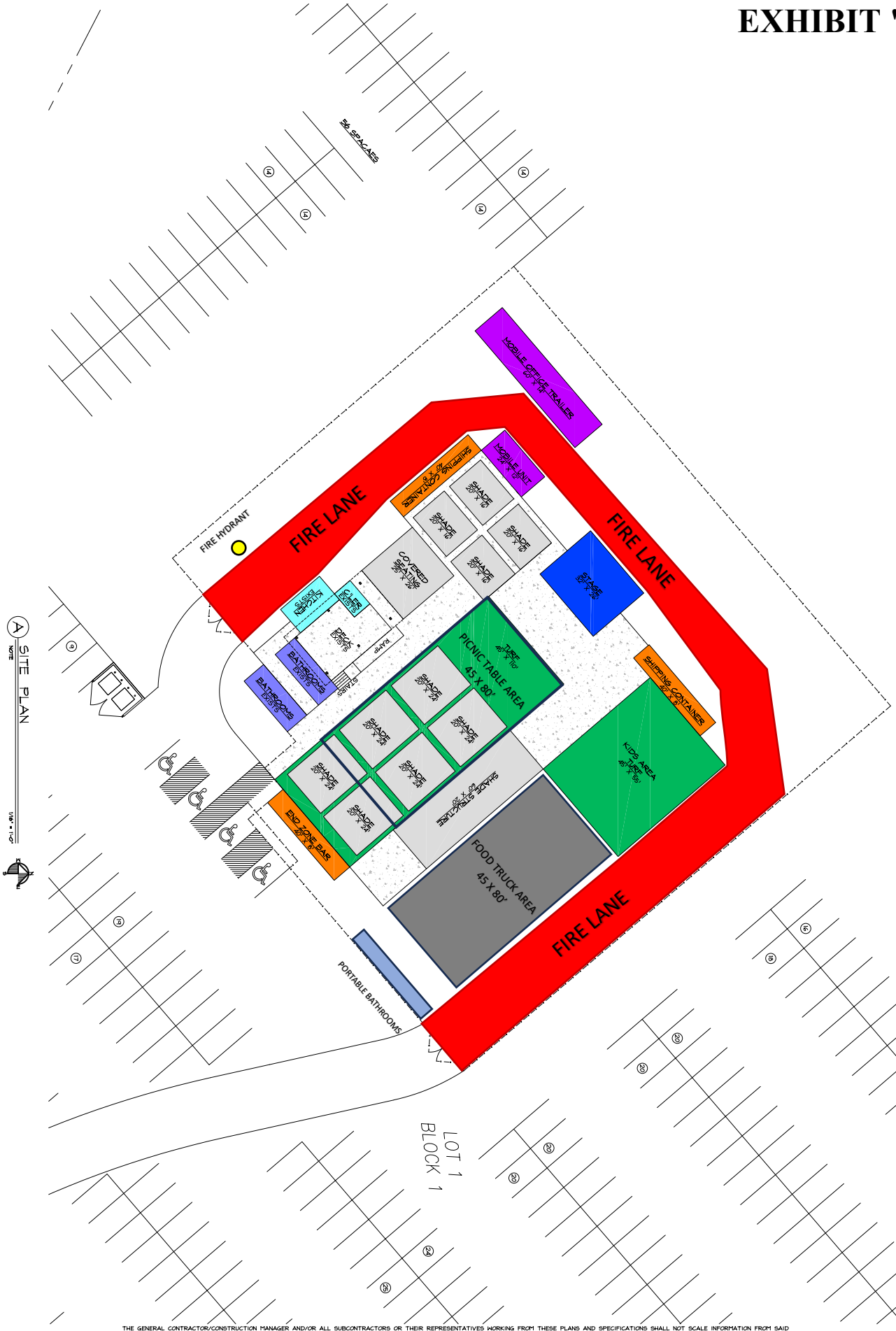
APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Cristina Burns, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

# EXHIBIT "A"




A SITE PLAN
NOTE

THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER AND/OR ALL SUBCONTRACTORS OR THEIR REPRESENTATIVES WORKING FROM THESE PLANS AND SPECIFICATIONS SHALL NOT SCALE INFORMATION FROM SAID DRAWINGS, BUT MUST CONTACT THE DESIGNER REGARDING MEASUREMENTS. IF SUCH MEASUREMENTS DO NOT APPEAR CORRECT OR ADD UP CORRECTLY TO THE INDICATED SIZE. IT SHALL ALSO BE THE RESPONSIBILITY OF THE G.C./C.M. AND THE SUBCONTRACTORS TO READ ALL NOTES AND TEXT ON THE DRAWINGS PRIOR TO BIDDING AND OR PROCEEDING WITH ANY WORK. THE G.C./C.M. SHALL COORDINATE ANY DISCREPANCIES BETWEEN SUBCONTRACTORS PRIOR TO PROCEEDING WITH ANY WORK AND CONTACT THE DESIGNER REGARDING SAID DISCREPANCIES PRIOR TO INSTALLATION OF ANY CONSTRUCTION MATERIALS.

SHEET NO. S-2 OF 25 SHEETS

BY: JM DRAFTING & DESIGN
P.O. BOX 4091 MIDLAND, TX. 79704
C: (432) 425-5297
E-MAIL: jmertink@gmail.com

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NEW SITE PLAN FOR: THE TAILGATE
4401 N BIG SPRING ST
MIDLAND TEXAS

JOB # JM23042

DATE ISSUED: JUNE 15, 2023
REVISED:

DRAWN BY: JAM

THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER AND/OR ALL SUBCONTRACTORS OR THEIR REPRESENTATIVES WORKING FROM THESE PLANS AND SPECIFICATIONS SHALL NOT SCALE INFORMATION FROM SAID DRAWINGS, BUT MUST CONTACT THE DESIGNER REGARDING MEASUREMENTS. IF SUCH MEASUREMENTS DO NOT APPEAR CORRECT OR ADD UP CORRECTLY TO THE INDICATED SIZE. IT SHALL ALSO BE THE RESPONSIBILITY OF THE G.C./C.M. AND THE SUBCONTRACTORS TO READ ALL NOTES AND TEXT ON THE DRAWINGS PRIOR TO BIDDING AND OR PROCEEDING WITH ANY WORK. THE G.C./C.M. SHALL COORDINATE ANY DISCREPANCIES BETWEEN SUBCONTRACTORS PRIOR TO PROCEEDING WITH ANY WORK AND CONTACT THE DESIGNER REGARDING SAID DISCREPANCIES PRIOR TO INSTALLATION OF ANY CONSTRUCTION MATERIALS.

SHEET NO. S-1 OF 25 SHEETS

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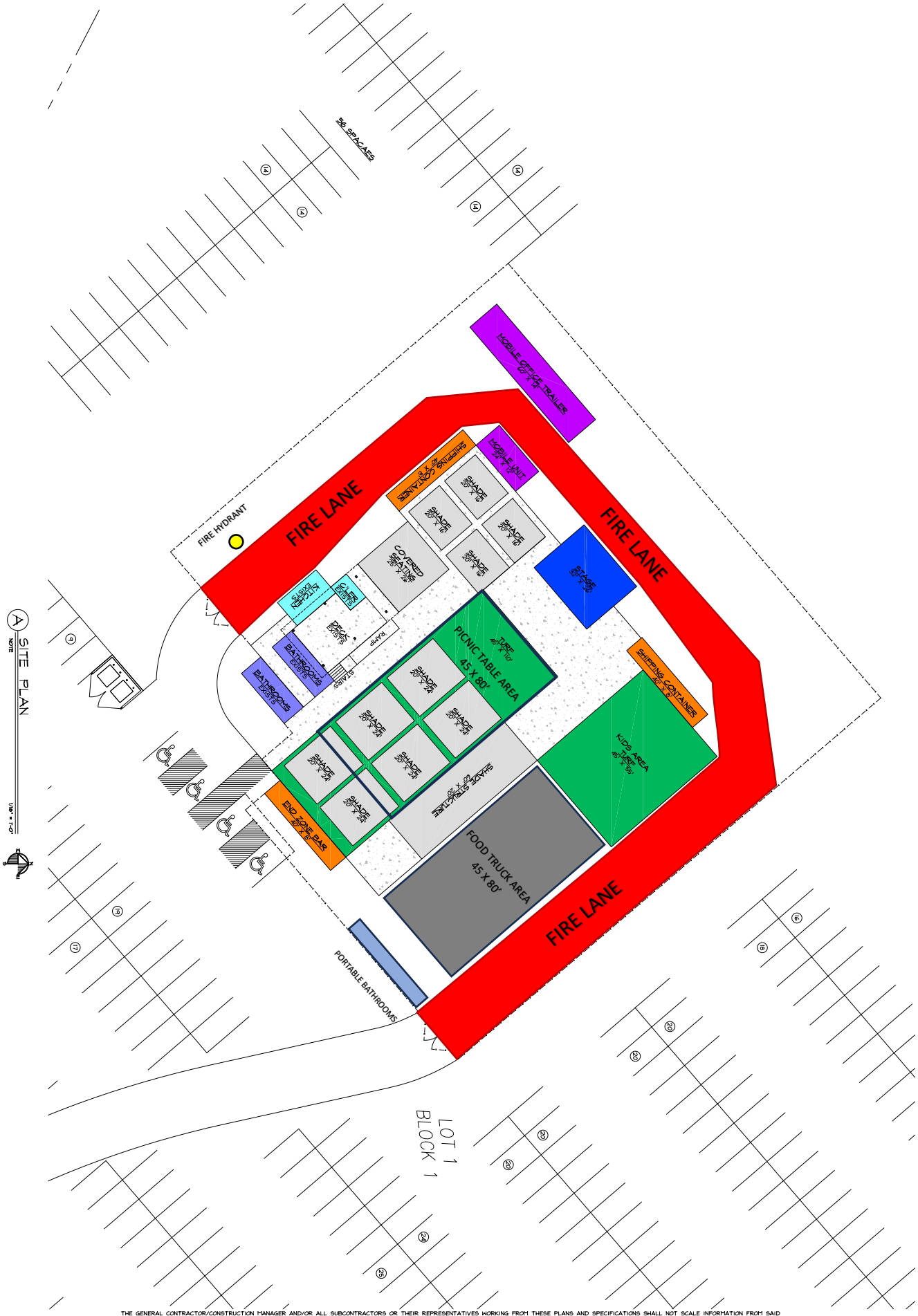
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MIDLAND TEXAS

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DATE ISSUED:
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SHEET NO. S-2 OF 25 SHEETS

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NEW SITE PLAN FOR:
THE TAILGATE
4401 N BIG SPRING ST
MIDLAND TEXAS

JOB # JM23042

DATE ISSUED: JUNE 15, 2023
REVISED:

DRAWN BY: JAM
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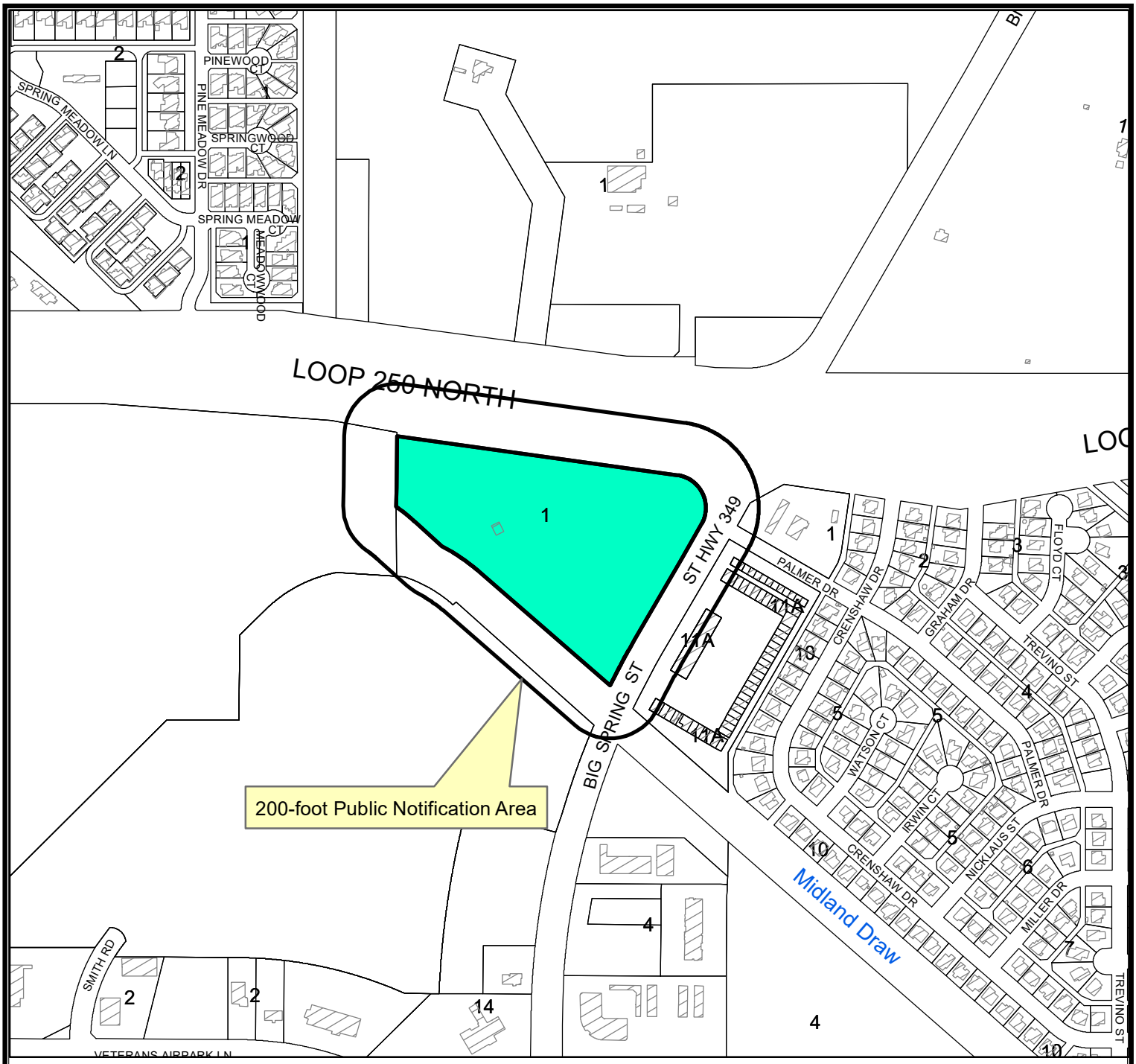
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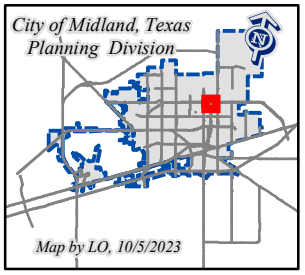

# LOCATION MAP

**SUDwo-23-0037** **Scale: 1" = 6,492'**

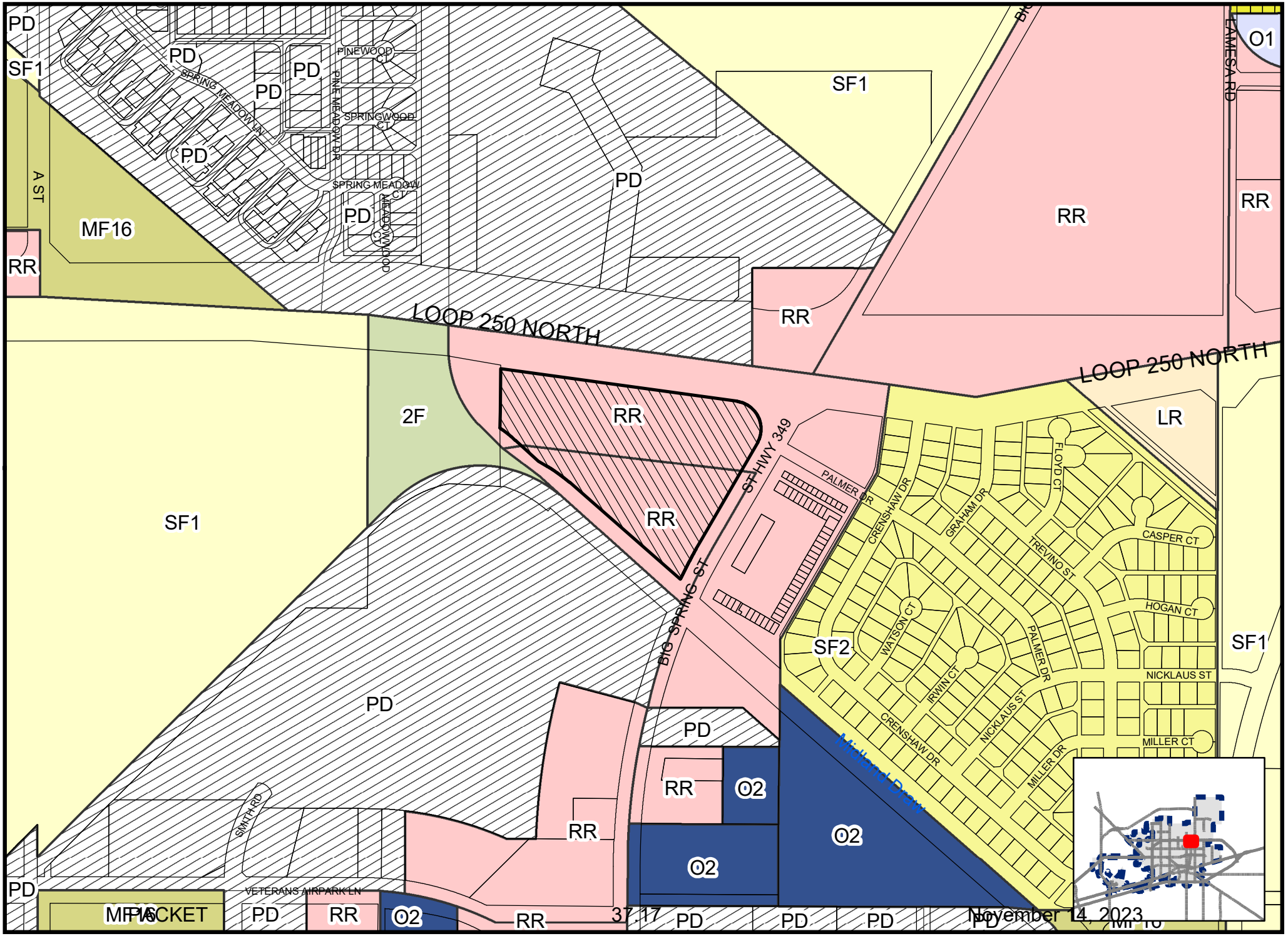
Consider a request by Christopher Sean Elphick for a Specific Use Designaion without term for a Mobile Food Vendor Park on Lot 1, Block 1, Claydesta Plaza North, Section 4, City and County of Midland, Texas.
Generally located on the southwest corner of the intersection of State Highway 349 and Loop 250 North (Council District 3)

**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




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THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND PRIOR IS IT DESIGNED TO BE USED AS THE ONLY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.




*Map By LO, 10/13/2023*

**SUDwo-23-0037**

**Scale: 1" = 6,466'**

# ZONING MAP

November 14, 2023

© THE CITY OF MIDLAND - 2021: THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT, NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN. THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.






THE
TAILGATE
TRAILGATE
ProPower




YOUNG'S
BUILDING SYSTEMS
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PERMIAN
BEAR
PriorityPower

# City Council Meeting

**Item Number:** 38

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Rolandrea Russell, Assistant Director

**Subject:** **AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR FOR LOT 1, BLOCK 1, CLAYDESTA PLAZA NORTH, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF NORTH BIG SPRING STREET AND WEST 250 LOOP NORTH), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A MOBILE FOOD VENDOR PARK AND COMMERCIAL AMUSEMENT (OUTDOOR) FACILITY FOR ON-PREMISES CONSUMPTION; MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DISTRICT 3) (DEVELOPMENT SERVICES)**

---

**Purpose:**

The applicant, Christopher Sean Elphick, is requesting a Specific Use Designation with Term (SUD) with Term for Alcoholic Beverages Sales for On-Premises Consumption in a Mobile Food Vendor Park and an Amusement, Commercial Outdoor Facility.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

This request has no significant financial impact to the City.

**Current Zoning:**

RR, Regional Retail District.

**Surrounding Zoning and Land Use:**

The properties to the north are zoned PD, Planned Development District for a Recreation Center (Ordinance 7322) and RR, Regional Retail District, and the location of a golf course and sports complex. The properties to the east are zoned RR, Regional Retail District, and the location of a retail shopping plaza and gas station. The property to the south is zoned PD, Planned Development District for an Office Center (Ordinance 5695). The properties to the west are zoned 2-F, Two-Family Dwelling District (Duplex) District and SF-1, Single-Family Dwelling District, and the location of Midland Airpark.

**Analysis:**

The property is zoned RR, Regional Retail District which allows for Alcoholic Beverages Sales for On-Premises Consumption with the approval of an SUD. The total alcohol serviceable area is 17,038 square feet.

On September 14, 2021, the City Council approved the applicant's original SUD for the sale of all alcoholic beverages (Ordinance 10233), but the applicant has since expanded on the property, added concerts and events, and its alcoholic beverages SUD expired on September 14, 2023. The applicant has also applied for SUDs for a mobile food vendor park and amusement, commercial (outdoor) facility on the property.

The proposed hours of operation:

**Monday through Sunday from 11 a.m. to 12 a.m.**

The proposed hours of alcohol service:

**Monday through Sunday from 11 a.m. to 12 a.m.**

Per Midland City Code 5.4.4. –Prohibited place of business

*The sale of any alcoholic beverage is hereby prohibited by any person, where the place of business of any such dealer is within 300 feet of any church, public school, public school ground, athletic stadium used by any public school or public hospital, the measurements to be along the property lines of the street fronts and from front door to front door and in a direct line across intersections where they occur.*

There are no churches, private schools, public schools, public school grounds, athletic stadiums, or public hospitals within 300 feet measurement along the property lines of the street fronts, and from the front door in a direct line across the intersection where they occur within this site.

This project has been circulated to all City departments for review. Below are the department's comments.

**Fire: (Approved with Conditions)**

The International Fire Code does not have provisions for permanent event site to operate as "Temporary". A Fire Lane and the internal access driveway are required that is capable of supporting 75,000 lbs. constructed of an all-weather surface that provides access within 150' of all portions. The fire lane must be marked in accordance with fire code requirements. All future events should be permitted under a separate TLU.

**Engineering: (Approved)**

No objections. [For Applicant's Information Only.]

**Transportation: (Approved)**

No objections. [For the Applicant's information only.]

**Building Code: (Approved with Conditions)**

Several of the permanent structures have been put into place without permits and inspections. The SUD request is reasonable; however, my approval of the SUD is contingent upon all structures having proper permits pulled and all inspections performed. These non-permitted structures include a mobile home, office/shed, shipping containers, shade structures, fencing, signage, and two large tanks used as decoration that sit on either side of the stage. The owners/operators of this property are also looking to increase upon the original SUD for larger events, once a maximum occupant load is given there will need to be a recalculation for permanent restroom facilities which could also trigger the need for additional permits and inspections. Temporary sanitary facilities are not acceptable to cover the increased occupant load, must be permanent. Each one of the individual unpermitted structures must have their own permit which calls for a separate permit submittal for each one. Each submittal will require a completed permit application, site plan that reflects the location of the structure and related distance measurements to adjoining structures and property lines, floor plans of the structure or detailed drawings of their construction, written scope of work or structure specifications, and any other information that can help describe the situation. These permits will need to be applied for by a licensed and bonded contractor. All permitted structures require inspections, those that are just now being permitted will also need a full set of inspections. If the structures are completed and, in a state, to where all inspections cannot be made, a third-party inspector such as a Texas licensed structural engineer, will need to make the inspections and give to the Building Official a signed and stamped letter stating that the permitted structure in question is of sound construction and poses no threat to life safety and will not compromise the site in any way. It is recommended that until the new SUD is approved, the previously approved SUD's with the original occupant load of 400 persons should be strictly adhered to. Many complaints from citizens regarding the amount of dirt/dust coming from the parking areas around the site have been made to our department. Asphalt Millings are going to be required by the City of Midland Planning division for the parking surfaces so this will eventually be addressed. Before the site is covered with millings, a plan must be put into place to control blowing dust. Frequent watering of the ground before automobile traffic comes to the site before and during an event is highly recommended. Any event that takes place that will go over the current or future occupancy load

and/or deviate from the location's intended use will need to apply for a TLU on top of the SUD. We cannot provide an updated occupant load with the Alcohol Serviceable Area SQ FT alone, we must have each public occupied area defined by what kind of seating/standing area there will be and the SQ FT of each of those areas.

**Planning:**

The request is in compliance with the *Tall City Tomorrow Comprehensive Plan, Chapter 6-Character Plan Goal 4,* "Encourage the development of places where Midland residents can gather and socialize to build connections" (Tall City Tomorrow page 137). The Tailgate will create a vibrant atmosphere where residents can feel relaxed and enjoy alcoholic beverages with their food.

The Planning and Zoning Commission recommended approval of this request at the October 16, 2023, regular meeting.

Staff recommends approval of the request of the Specific Use Designation with Term for the sale of all alcoholic beverages, for on-premises consumption, in a Mobile Food Vendor Park and an Amusement, Commercial Outdoor Facility, subject to Condition A through H.

**Conditions:**

**A. That the alcohol serviceable area of the establishment shall be limited to approximately 17,038 square feet, as shown in Exhibit A.**

**B. That the operator of the Establishment shall place a sign at the driveway notifying drivers that a left turn onto North Big Spring Street is prohibited.**

**C. That the operator of the Establishment shall provide a 20-foot-wide fire lane around the facility capable of supporting 75,000 lbs. and constructed of an all-weather surface that provides access within 150' of all portions. The fire lane must be marked in accordance with fire code requirements.**

**D. That the permitted hours of the sale of alcoholic beverages shall be limited to:**
***Monday through Sunday from 11:00 a.m. to 2:00 a.m.***

**E. That the sale and on-premises consumption of alcoholic beverages shall conform to all applicable state and local laws.**

**F. That the occupancy of the establishment shall not exceed the maximum occupancy determined by the Building Code and Fire Code.**

**G. That the establishment shall meet the requirements of the Fire Department and the Code Administration Division.**

**H. That this approval be conditional on obtaining approval for a mobile food vendor park and amusement, commercial (outdoor) facility for the same property and**

**attached site plan (Exhibit A).**

**Letters of Objection:**

As of November 3, 2023, staff has not received any letters of objection.

**Attachments:**

Site Plan (Exhibit A)
Application
Maps



City Manager's Office

**ORDINANCE NO. _____**

**AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR FOR LOT 1, BLOCK 1, CLAYDESTA PLAZA NORTH, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF NORTH BIG SPRING STREET AND WEST 250 LOOP NORTH), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A MOBILE FOOD VENDOR PARK AND COMMERCIAL AMUSEMENT (OUTDOOR) FACILITY FOR ON-PREMISES CONSUMPTION; MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION**

**WHEREAS**, the City Planning and Zoning Commission and the Governing Body of the City of Midland, Texas, in compliance with the City Charter, the City Code, and State law, have given the requisite notices by United States mail, publication and otherwise; and after holding due hearings affording a full and fair hearing to all of the property owners generally, and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body of the City of Midland finds that the public convenience will be best served by granting a Specific Use Designation With Term for Lot 1, Block 1, Claydesta Plaza North, Section 4, City and County of Midland, Texas (the "Property"), as set out hereinafter;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the Zoning District Map of the City of Midland, Texas, is hereby amended to grant the Property a Specific Use Designation With Term for the sale of all alcoholic beverages in a mobile food vendor park and commercial amusement (outdoor) facility (collectively, the "Establishment") for on-premises consumption, together with the

uses permitted in the present RR, Regional Retail District.

**SECTION TWO.** That the Property shall be subject to the following conditions and restrictions:

A. That the serviceable area of the Establishment shall be limited to approximately 17,038 square feet as shown in Exhibit "A", which is attached hereto and incorporated herein for all purposes.

B. That the sale and on-premises consumption of alcoholic beverages shall conform to all applicable state and local laws.

C. That the days and hours of alcoholic beverage sales and consumption shall be limited to Monday through Sunday from 11:00 a.m. to 2:00 a.m. of the following day.

D. That the occupancy of the Establishment shall not exceed the maximum occupancy determined by the Building Code and Fire Code.

E. That the Establishment shall meet the requirements of the Fire Department and the Code Administration Division.

F That the operator of the Establishment shall place a sign at the driveway notifying drivers that a left turn onto North Big Spring Street is prohibited.

G. That the operator of the Establishment shall provide a 20-foot-wide fire lane around the Establishment that provides access within 150 feet of all portions of the Establishment. The fire lane shall be capable of supporting 75,000 pounds and shall have an all-weather surface. The fire lane must be marked in accordance with the Fire Code.

H. That this ordinance shall not be effective unless (1) there is a Specific Use Designation Without Term in effect that allows the Property to be used for commercial amusement (outdoors), (2) there is a Specific Use Designation Without Term in effect that allows the Property to be used for a mobile food vendor park, and (3) the Establishment is operated in compliance with the ordinances that granted the aforementioned Specific Use Designations Without Term .

**SECTION THREE.** The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances, inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION FOUR.** If any section, subsection, sentence, clause or phrase of this

ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION FIVE.** The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION SIX.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2023; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2023, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

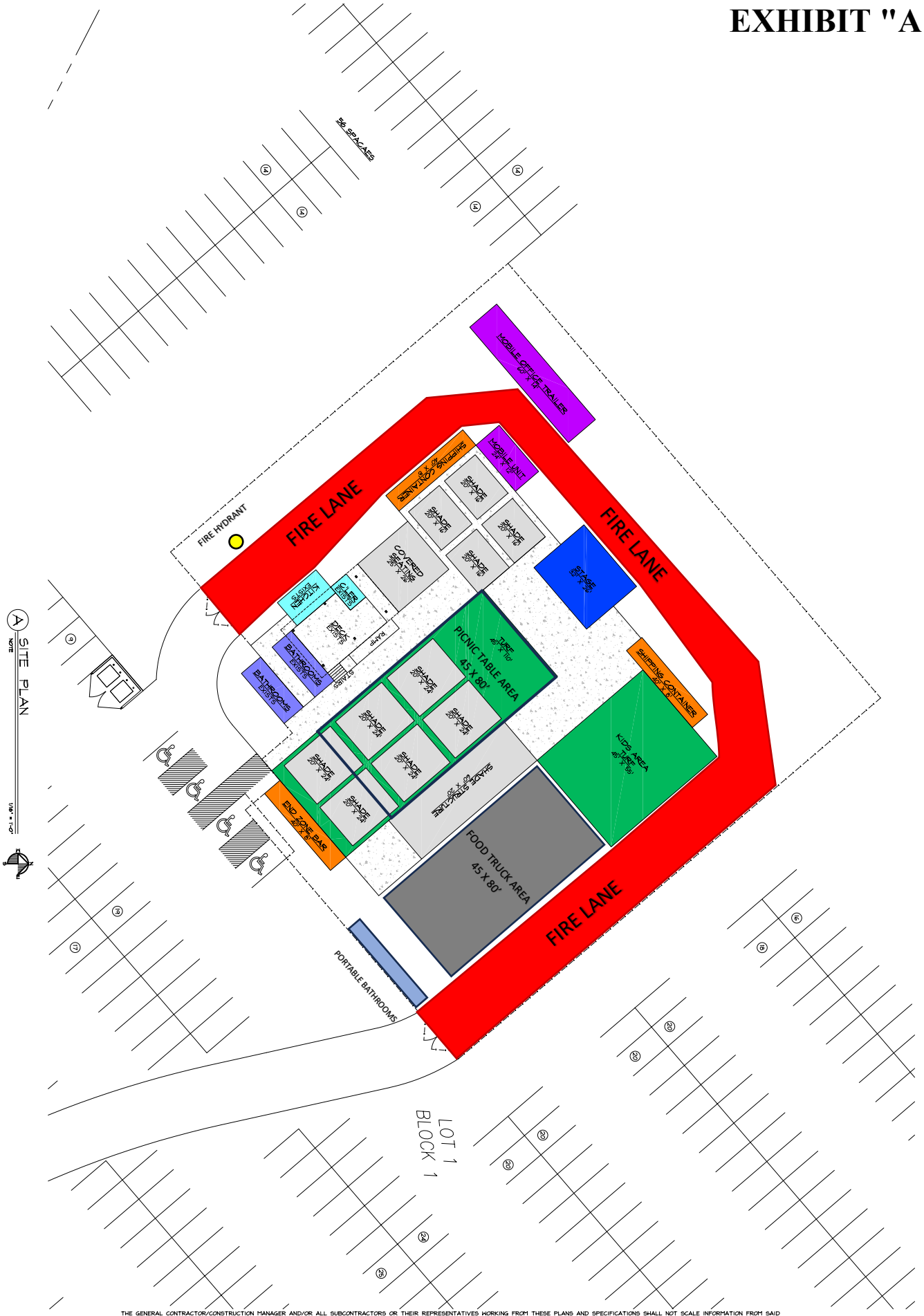
APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Cristina Burns, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

# EXHIBIT "A"




THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER AND/OR ALL SUBCONTRACTORS OR THEIR REPRESENTATIVES WORKING FROM THESE PLANS AND SPECIFICATIONS SHALL NOT SCALE INFORMATION FROM SAID DRAWINGS, BUT MUST CONTACT THE DESIGNER REGARDING MEASUREMENTS. IF SUCH MEASUREMENTS DO NOT APPEAR CORRECT OR ADD UP CORRECTLY TO THE INDICATED SIZE. IT SHALL ALSO BE THE RESPONSIBILITY OF THE G.C./C.M. AND THE SUBCONTRACTORS TO READ ALL NOTES AND TEXT ON THE DRAWINGS PRIOR TO BIDDING AND OR PROCEEDING WITH ANY WORK. THE G.C./C.M. SHALL COORDINATE ANY DISCREPANCIES WITH ALL SUBCONTRACTORS PRIOR TO PROCEEDING WITH ANY WORK AND CONTACT THE DESIGNER REGARDING SAID DISCREPANCIES PRIOR TO INSTALLATION OF ANY CONSTRUCTION MATERIALS.

SHEET NO. S-2 OF 25 SHEETS

BY: JM DRAFTING & DESIGN
P.O. BOX 4091 MIDLAND, TX. 79704
C: (432) 425-5297
E-MAIL: jmmartinik@gmail.com

© COPYRIGHT, J M DRAFTING & DESIGN 2023 FEDERAL COPYRIGHT PROTECTION EXTENDING TO DERIVATIVE PLANS, IS APPLICABLE TO INTENTIONAL AND UNINTENTIONAL INFRINGEMENTS AND PROVIDES FOR SPECIFIC STATUTORY DAMAGES BOTH CIVIL AND CRIMINAL. UNAUTHORIZED REPRODUCTION IN ANY FORM IS STRICTLY PROHIBITED AND FORBIDDEN.

NEW SITE PLAN FOR: THE TAILGATE
4401 N BIG SPRING ST
MIDLAND TEXAS
JOB # JM23042
DATE ISSUED: JUNE 15, 2023
REVISED:
DRAWN BY: JAM

A SITE PLAN
NOTE
1" = 40'-0"




THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER AND/OR ALL SUBCONTRACTORS OR THEIR REPRESENTATIVES WORKING FROM THESE PLANS AND SPECIFICATIONS SHALL NOT SCALE INFORMATION FROM SAID DRAWINGS, BUT MUST CONTACT THE DESIGNER REGARDING MEASUREMENTS. IF SUCH MEASUREMENTS DO NOT APPEAR CORRECT OR ADD UP CORRECTLY TO THE INDICATED SIZE. IT SHALL ALSO BE THE RESPONSIBILITY OF THE G.C./C.M. AND THE SUBCONTRACTORS TO READ ALL NOTES AND TEXT ON THE DRAWINGS PRIOR TO BIDDING AND OR PROCEEDING WITH ANY WORK. THE G.C./C.M. SHALL COORDINATE ANY DISCREPANCIES BETWEEN SUBCONTRACTORS PRIOR TO PROCEEDING WITH ANY WORK AND CONTACT THE DESIGNER REGARDING SAID DISCREPANCIES PRIOR TO INSTALLATION OF ANY CONSTRUCTION MATERIALS.

SHEET NO.
S-1
OF 25 SHEETS

BY:
DRAFTING & DESIGN
P.O. BOX 4091 MIDLAND, TX. 79704
C: (432) 425-5297
E-MAIL: jmmertink@gmail.com

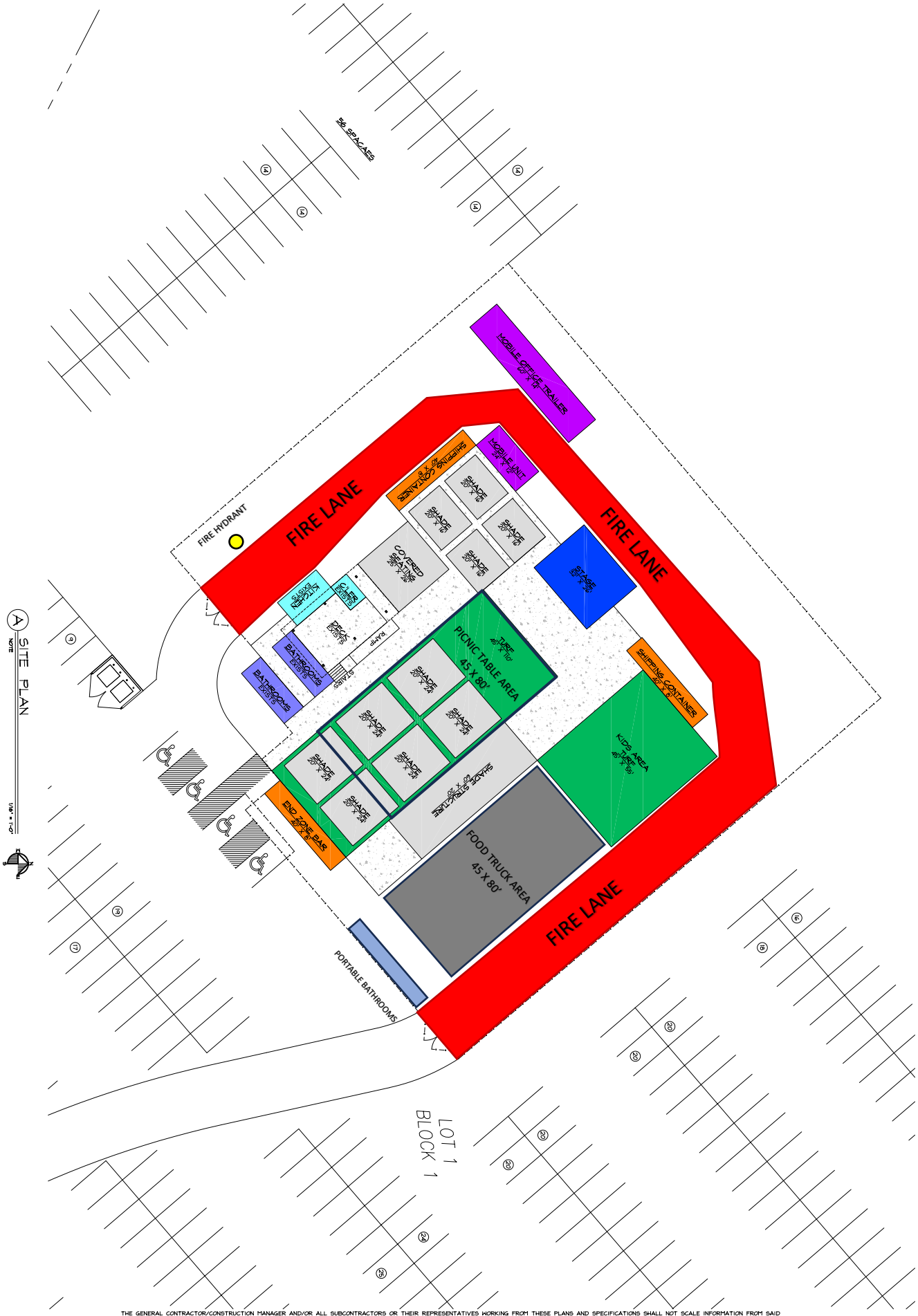
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NEW SITE PLAN FOR:
THE TAILGATE
4401 N BIG SPRING ST
MIDLAND TEXAS

JOB # JM23043

DATE ISSUED:
JUNE 15, 2023
REVISED:

DRAWN BY: JAM
JOB # JM23043


56 SPACES
FIRE HYDRANT
FIRE LANE
FIRE LANE
FIRE LANE
MOBILE OFFICE 40' X 16' TRAILER
SHIPPING CONTAINER 40' X 8'
MOBILE UNIT 20' X 12'
SHADE 20' X 16'
SHADE 20' X 16'
SHADE 20' X 16'
SHADE 20' X 16'
COVERED SEATING 96' X 16'
SHADE 20' X 16'
SHADE 20' X 16'
SHADE 20

A SITE PLAN
NOTE
1" = 40'-0"




THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER AND/OR ALL SUBCONTRACTORS OR THEIR REPRESENTATIVES WORKING FROM THESE PLANS AND SPECIFICATIONS SHALL NOT SCALE INFORMATION FROM SAID DRAWINGS, BUT MUST CONTACT THE DESIGNER REGARDING MEASUREMENTS. IF SUCH MEASUREMENTS DO NOT APPEAR CORRECT OR ADD UP CORRECTLY TO THE INDICATED SIZE. IT SHALL ALSO BE THE RESPONSIBILITY OF THE G.C./C.M. AND THE SUBCONTRACTORS TO READ ALL NOTES AND TEXT ON THE DRAWINGS PRIOR TO BIDDING AND OR PROCEEDING WITH ANY WORK. THE G.C./C.M. SHALL COORDINATE ANY DISCREPANCIES BETWEEN SUBCONTRACTORS PRIOR TO PROCEEDING WITH ANY WORK AND CONTACT THE DESIGNER REGARDING SAID DISCREPANCIES PRIOR TO INSTALLATION OF ANY CONSTRUCTION MATERIALS.

SHEET NO.
S-1
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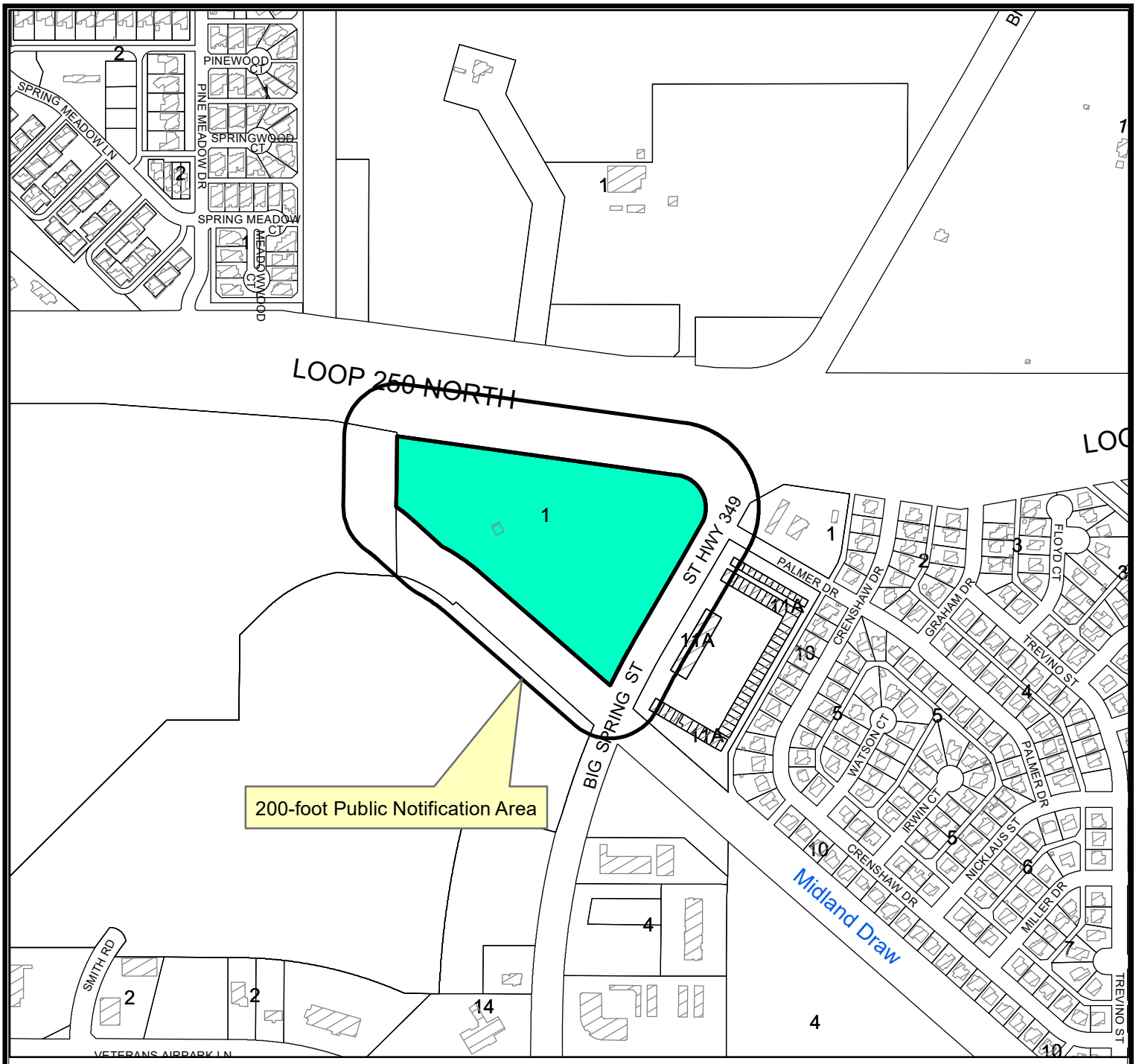
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NEW SITE PLAN FOR:
THE TAILGATE
4401 N BIG SPRING ST
MIDLAND TEXAS

JOB # JM23043

DATE ISSUED:
JUNE 15, 2023
REVISED:

DRAWN BY: JAM
JOB # JM23043




# LOCATION MAP

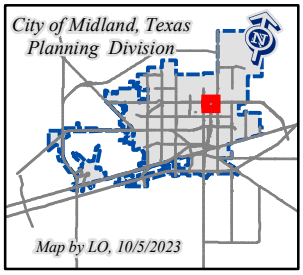
**SUD-23-0161** **Scale: 1" = 6,492'**

Consider a request by Christopher Sean Elphick for a Specific Use Designaion with term for the sale of all alcoholic beverages for on-premise consumption
in a mobile food vendor park and amusement commercial outdoor facility on Lot 1, Block 1, Claydesta Plaza North, Section 4, City and County of Midland, Texas.

Generally located on the southwest corner of the intersection of State Highway 349 and Loop 250 North (Council District 3).

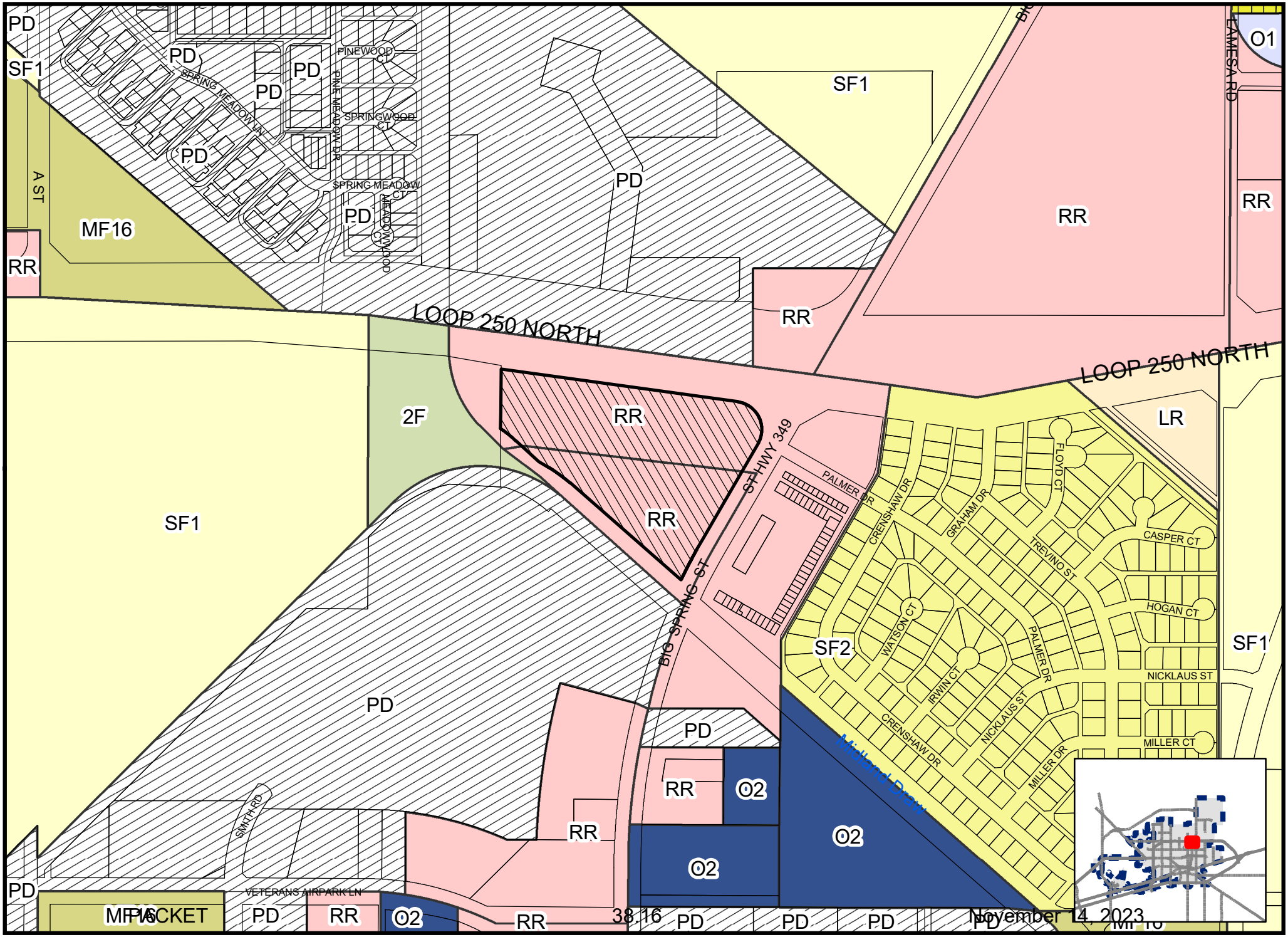
**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




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THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.

November 14, 2023




Map By LO, 10/13/2023

**SUD-23-0161**

**Scale: 1" = 6,466'**

# ZONING MAP

November 14, 2023

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THE
TAILGATE
TRAILGATE
ProPower




YOUNG'S
BUILDING SYSTEMS
ALLIED
GROUP
PCS
PERMIAN
BEAR
PriorityPower

# City Council Meeting

**Item Number:** 39

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Landon Ochoa, Senior Planner

**Subject:** **AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE A 23.93-ACRE TRACT OF LAND OUT OF SECTION 27, BLOCK 39, T-1-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS, FROM PD, PLANNED DEVELOPMENT DISTRICT FOR A MEDICAL CENTER AND HOSPITAL, IN PART, AND O-1, OFFICE DISTRICT, IN PART, TO PD, PLANNED DEVELOPMENT DISTRICT FOR A MEDICAL CENTER AND HOSPITAL (GENERALLY LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF KENT STREET AND WEST MICHIGAN AVENUE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DISTRICT 3) (DEVELOPMENT SERVICES)**

---

**Purpose:**

The applicants, Midland County Hospital District and Debbie Parchman Reese, are requesting a Zone Change from PD, Planned Development District for a Medical Center (Ordinance No. 8738), in part, and O-1, Office District, in part, to PD, Planned Development District for a Medical Center and Hospital, to expand the PD boundary, expand the existing hospital, and construct a new medical office building with new parking.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

No City funds would be required for this project.

**Current Zoning:**

PD, Planned District for a Medical Center (Ordinance No. 8738), in part, and O-1, Office District, in part.

**Surrounding Zoning and Land Use:**

The properties to the north are zoned O-1, Office District, and the location of medical and professional offices The properties to the east are zoned O-1, Office District, SF-2, Single-Family Dwelling District, and PD, Planned District for a Transition District and the location of offices and residences. The properties to the south are zoned O-1, Office District and RR, Regional Retail District, and the location of a school and a pharmacy. The properties to the west are zoned RR, Regional Retail, and the location of various businesses.

**Analysis:**

The applicants, Midland County Hospital District and Debbie Parchman Reese are requesting approval of a Zone Change to expand the boundaries of the Planned District, expansion and modification of the existing hospital, and construction of a new medical office building and parking. A request to vacate a portion of North N Street and the alley shown in Exhibit A has been submitted to the City and was approved in its first reading on October 24, 2023. The Preliminary Plat was approved at the May 15, 2023, Planning and Zoning Commission meeting.

The existing Planned District has an underlying base zoning of O-2, Office District. The proposed zone change for the expansion of the boundaries of the Planned District will retain O-2, Office District as the underlying base zoning.

The submitted site plan illustrates the proposed infill of the courtyards and expansion of the third floor of the existing hospital campus, a future garden, a new office building, and additional parking. The south tower will eventually be demolished.

This proposed Zone Change has been circulated to the respective City departments for internal review and their comments, conditions, and requirements are as follows:

**Fire: (Approved)**

No objection.

**Building Code: (Approved)**

No issues. All future structures must adhere to the 2018 International Building Codes, the 2015 International Energy Code, the 2020 NEC requirements, the 2015 International Fire Codes, local city ordinances, zoning requirements, established setbacks, oil and gas considerations, and floodplain requirements if necessary. Code versions are subject to change depending on time of new code edition adoption in the City of Midland and date of permit application.

**Engineering: (Approved)**

No objections to zone change. [For Applicant's Information Only.] Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations. [For Applicant's Information Only.]

**Code Compliance: (Approved)**

No Oil and Gas issues.

**Transportation: (Approved)**

Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations. [For the Applicant's information only.] No objection to zone change. [For the Applicant's information only.]

**Planning:**

This request is consistent with the Tall City Tomorrow Comprehensive Plan, Goal #2 of Chapter 7-Tall City Central District Plan, which aims to "Create a 'cultural core' in Downtown Midland that is a living, working, and entertainment destination." The development of medical offices in this area would help advance the Central District towards this goal as it would improve the City's medical services and create employment opportunities.

The Planning and Zoning Commission recommended approval of this request on October 16, 2023.

Therefore, staff recommends approval of this Zone Change from PD, Planned Development District for a Medical Center (Ordinance No. 8738), in part, and O-1, Office District, in part to PD, Planned Development District for a Medical Center and Hospital with a base zoning of O-2, Office District subject to conditions A through D.

**Conditions:**

**A. That the Property shall significantly conform to the site plan attached hereto as Exhibit "B".**

**B. That this property shall be subject to the regulations of the O-2, Office District, except as otherwise stated below.**

**C. That the parking shown on Exhibit "B" shall be considered illustrative, with the minimum number of parking spaces required determined by Section 11-1-6.02 of the City Code.**

**D. That Ordinance 8738 shall be repealed.**

**Letters of Objection:**

As of November 2, 2023, staff has received no letters of objection for this request.

**Attachments:**

Application
Survey (Exhibit A)
Site Plan (Exhibit B)
Renderings (Illustrative Only)
Maps

City Manager's Office

**ORDINANCE NO. _____**

**AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE A 23.93-ACRE TRACT OF LAND OUT OF SECTION 27, BLOCK 39, T-1-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS, FROM PD, PLANNED DEVELOPMENT DISTRICT FOR A MEDICAL CENTER AND HOSPITAL, IN PART, AND O-1, OFFICE DISTRICT, IN PART, TO PD, PLANNED DEVELOPMENT DISTRICT FOR A MEDICAL CENTER AND HOSPITAL (GENERALLY LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF KENT STREET AND WEST MICHIGAN AVENUE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION**

**WHEREAS**, the City Planning and Zoning Commission and the Governing Body of the City of Midland, in compliance with the City Charter, the City Code, and State law, have given the requisite notices by United States mail, publication and otherwise; and after a full and fair hearing to all of the property owners generally and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body finds that the public health, safety and general welfare will be best served by rezoning a 23.93-acre tract of land out of Section 27, Block 39, T-1-S, T&P RR Co. Survey, City and County of Midland, Texas, said tract being more specifically described by metes and bounds in Exhibit "A", which is attached hereto and incorporated herein (the "Property") to PD, Planned Development District for a Medical Center and Hospital and adopting a site plan therefor, as set out hereinafter;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the Zoning District Map of the City of Midland, Texas, is hereby amended to rezone the Property from PD, Planned Development District for a Medical Center and Hospital, in part, and O-1, Office District, in part, to PD, Planned Development District for a Medical Center and Hospital.

**SECTION TWO.** That the base zoning district to which the use and development of the Property shall conform, except as modified by Section Three of this ordinance, is the O-2, Office District.

**SECTION THREE.** That a site plan, which is attached hereto as Exhibit "A/B" and incorporated herein for all purposes, is hereby adopted, and the use and development of the Property shall be subject to the following conditions and restrictions:

A. That the Property shall significantly conform to the site plan attached hereto as Exhibit "B".

B. That the parking shown in Exhibit "B" shall be considered illustrative. The minimum number of off-street parking spaces shall be determined by Section 11-1-6.02 of the City Code.

C. That Ordinance No. 8738 is hereby repealed.

**SECTION FOUR.** That the definitions given in the zoning regulations contained in the City Code of the City of Midland, Texas, shall be applicable to such of those terms as are used herein.

**SECTION FIVE.** The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION SIX.** If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION SEVEN.** The penalty for violation of this ordinance shall be in

accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION EIGHT.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2023; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2023, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Cristina Burns, Director of Development Services

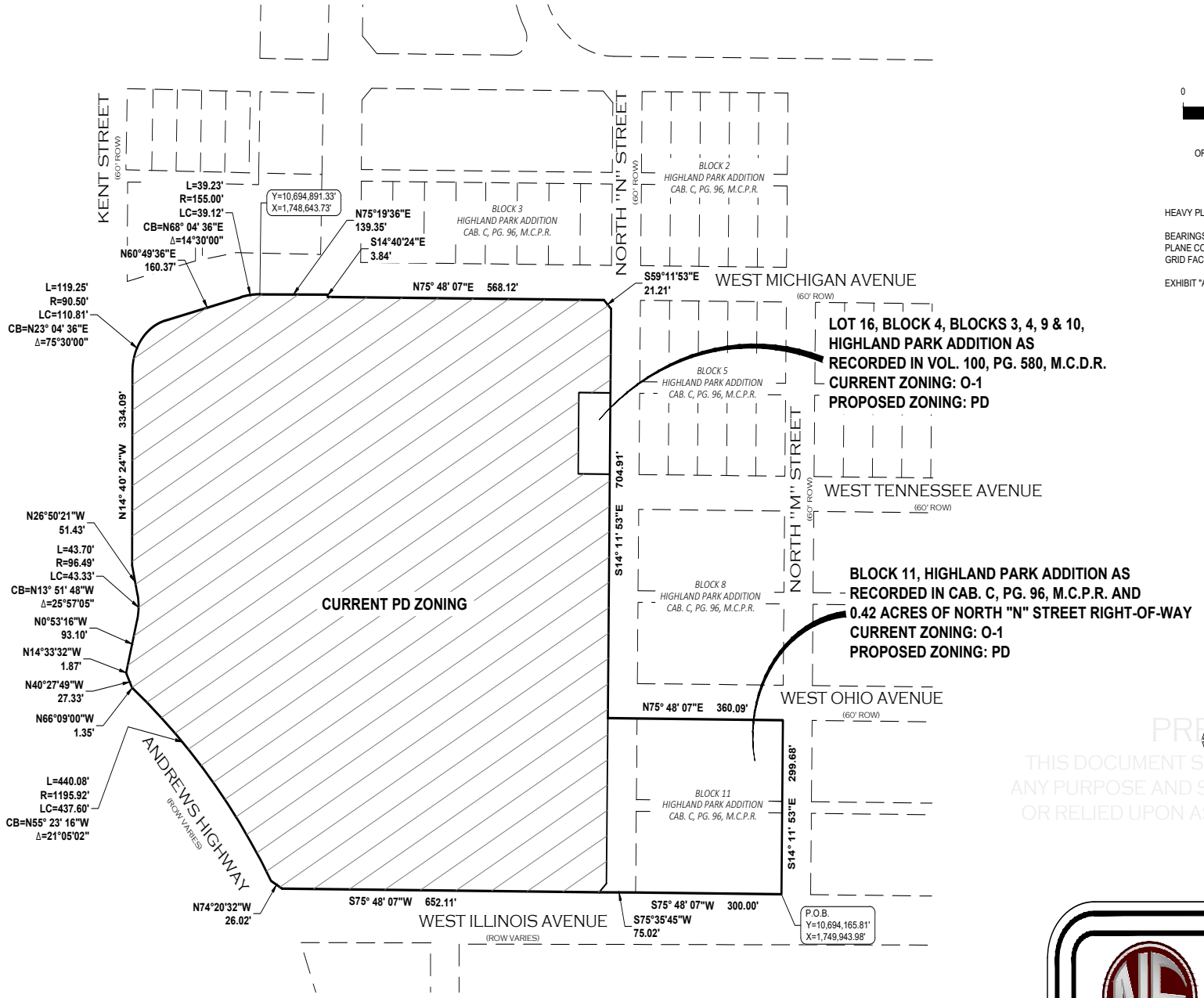
APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

ZONING EXHIBIT OF

# A 23.93 ACRE TRACT

LOCATED IN SECTION 27, BLOCK 39, T-1-S, T&P RR. CO. SURVEY,
CITY AND COUNTY OF MIDLAND, TEXAS.




GRAPHIC SCALE

0 200' 400'

( IN FEET )

ORIGINAL PLOTTED AT A SCALE OF 1"=200'
ON 11" x 17" PAPER

HEAVY PLOTTED LINES INDICATE LIMITS OF SURVEY.

BEARINGS AND DISTANCES ARE RELATIVE TO THE TEXAS STATE PLANE COORDINATE SYSTEM, 1983 NAD, CENTRAL ZONE. COMBINED GRID FACTOR OR 0.999901786 AND A THETA ANGLE OF -00°54'32".

EXHIBIT "A" ACCOMPANIES THIS EXHIBIT.

STATE OF TEXAS
REGISTERED
DOW E KELLY
5707
PROFESSIONAL
LAND SURVEYOR

PRELIMINARY
THIS DOCUMENT SHALL NOT BE RECORDED FOR
ANY PURPOSE AND SHALL NOT BE USED OR VIEWED
OR RELIED UPON AS A FINAL SURVEY DOCUMENT.

PACKET 30.9

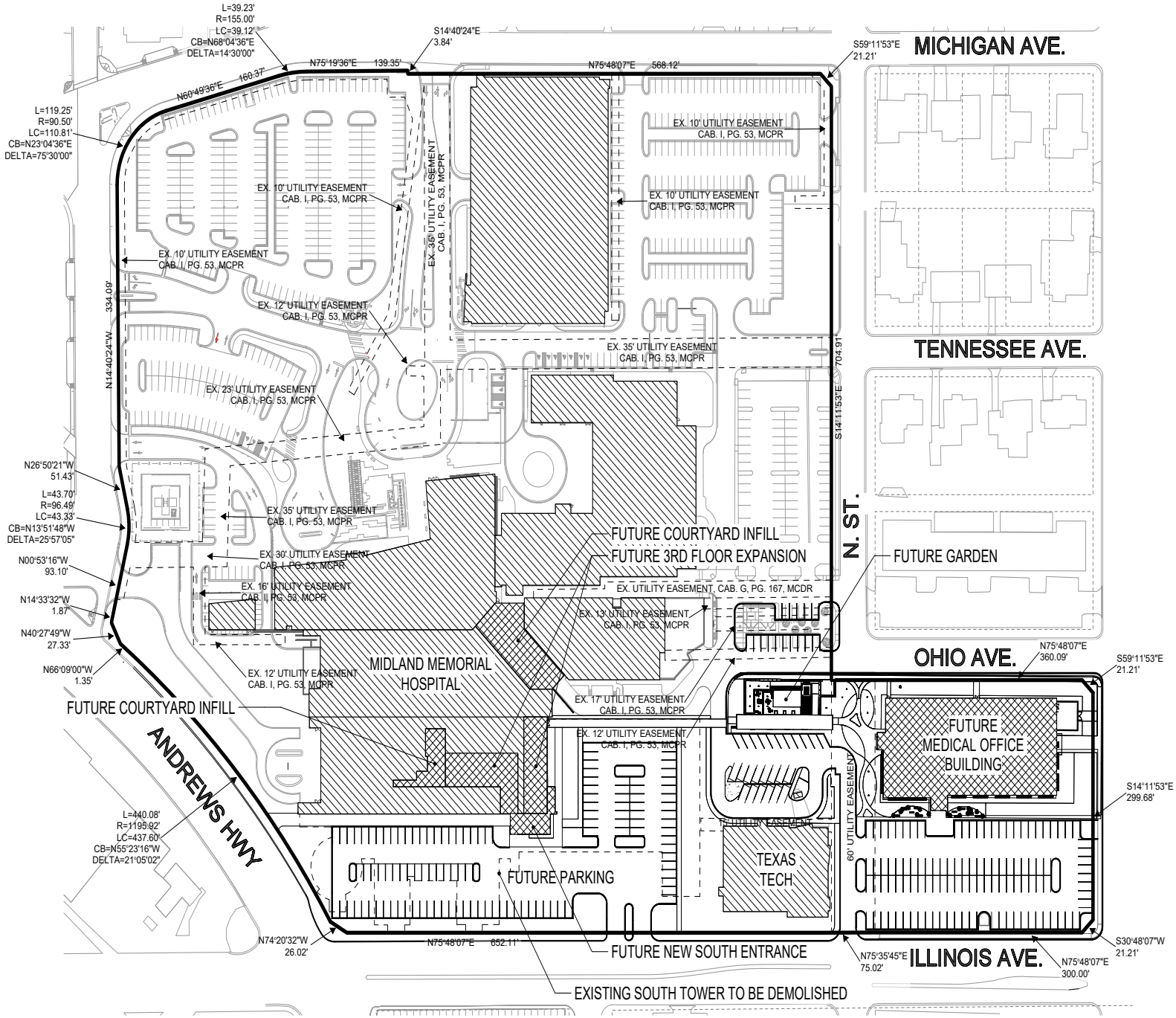
**EXHIBIT "A"**

November 14, 2023

NEWTON ENGINEERING, PC
4304 Carla Rose Dr, Midland, Texas 79707 (432) 770-0499
F-10194809
2481 E. 2nd St. Odessa, Texas 79761 (432) 935-0707

Prepared For: MIDLAND COUNTY HOSPITAL DISTRICT

Job No: 22-ME12291




1 MASTER PLAN
SCALE: 1" = 60'-0"

PACKET

MIDLAND MEMORIAL HEALTH
MASTER PLAN
AUGUST 2023

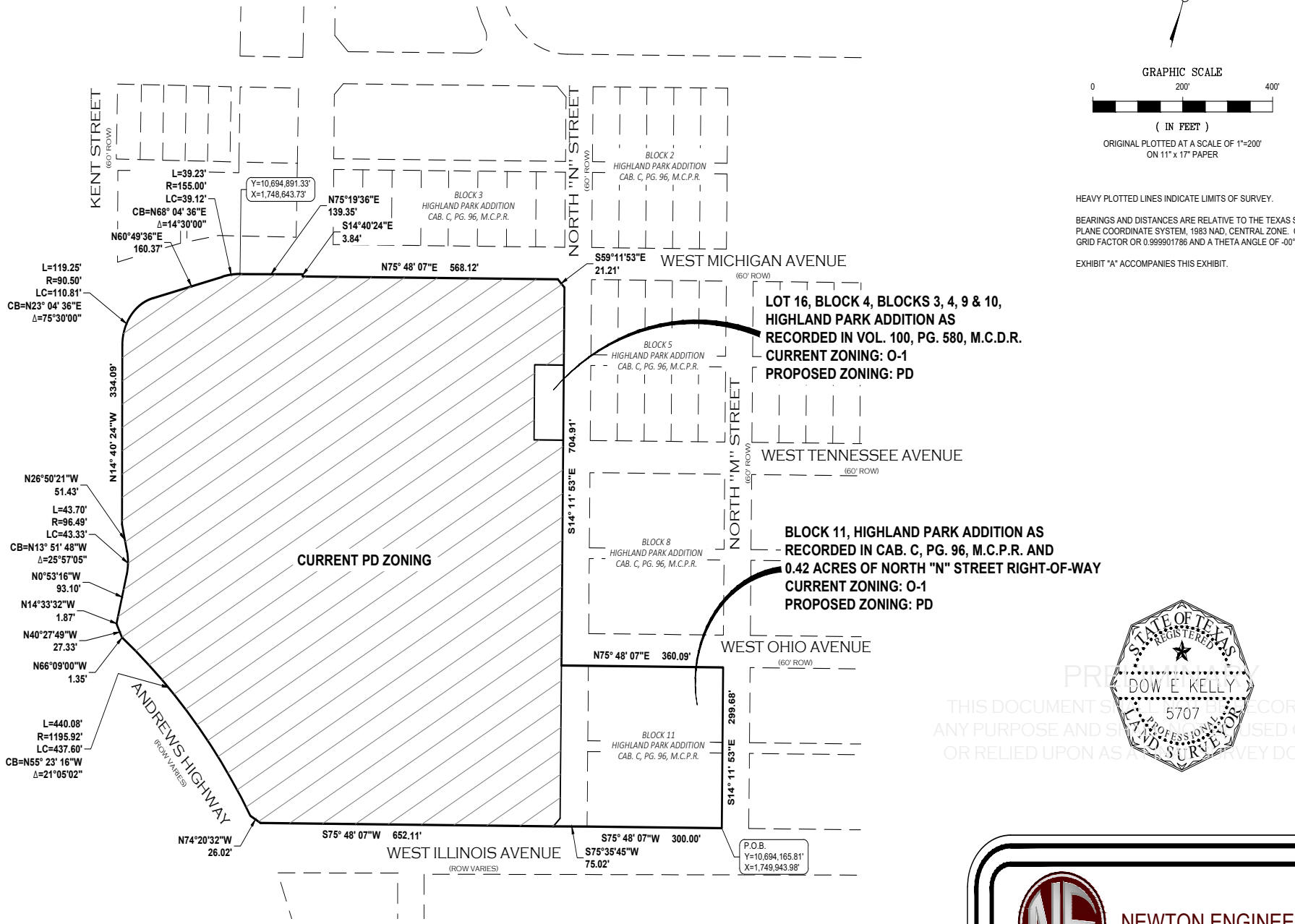
**EXHIBIT "B"**

November 14, 2023

ZONING EXHIBIT OF

# A 23.93 ACRE TRACT

LOCATED IN SECTION 27, BLOCK 39, T-1-S, T&P RR. CO. SURVEY,
CITY AND COUNTY OF MIDLAND, TEXAS.




GRAPHIC SCALE

0 200' 400'

( IN FEET )

ORIGINAL PLOTTED AT A SCALE OF 1"=200'
ON 11" x 17" PAPER

HEAVY PLOTTED LINES INDICATE LIMITS OF SURVEY.

BEARINGS AND DISTANCES ARE RELATIVE TO THE TEXAS STATE PLANE COORDINATE SYSTEM, 1983 NAD, CENTRAL ZONE. COMBINED GRID FACTOR OR 0.999901786 AND A THETA ANGLE OF -00°54'32".

EXHIBIT "A" ACCOMPANIES THIS EXHIBIT.

STATE OF TEXAS
REGISTERED
DOW E KELLY
5707
PROFESSIONAL
LAND SURVEYOR

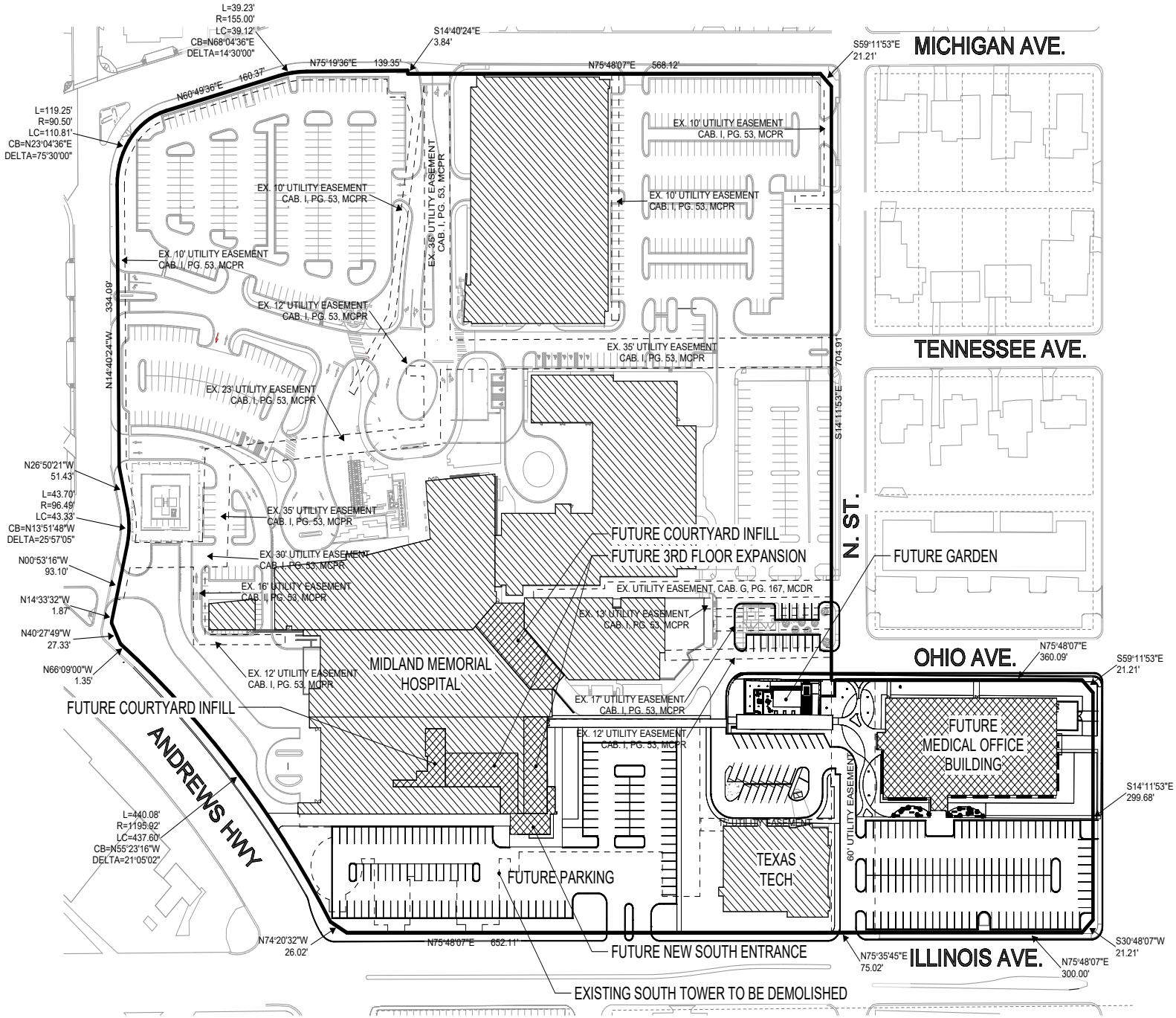
PRELIMINARY
THIS DOCUMENT SHALL NOT BE RECORDED FOR
ANY PURPOSE AND SHALL NOT BE USED OR VIEWED
OR RELIED UPON AS A FINAL SURVEY DOCUMENT.

PACKET 39.11 November 14, 2023

NEWTON ENGINEERING, PC
1300 Santa Rosa Dr.
Midland, Texas 79707
(432) 770-0499
F-10194809
2481 E. 2nd St.
Odessa, Texas 79761
(432) 935-0707

Prepared For: MIDLAND COUNTY HOSPITAL DISTRICT

Job No: 22-ME12291




1 MASTER PLAN
SCALE: 1" = 60'-0"







MIDLAND Planning Division

**Zone Change/Planned District Amendment/Site Plan Approval**

Project Number: _____

Case Number: Z-23-0342

| | | | |
|---|---|---|---|
| **Applicant** *(if acting as Agent, see affidavit on page 2)*<br>Printed Name: Midland County Hospital District | | Phone ( )<br>Email | |
| Address 2200 W. Illinois Avenue | City Midland | State Tx | Zip 79701 |

| | | | |
|---|---|---|---|
| **Property Owner**<br>Printed Name: Same as applicant | | Phone ( )<br>Email | |
| Address | City | State | Zip |

| | | | |
|---|---|---|---|
| **Representative** *(if different from Applicant or Property Owner)*<br>Firm: Newton Engineering, PC<br>Printed Name: Kyle L. Newton, PE, SIT | | Phone ( 432 ) 935-0707<br>Email<br>kyle@newtoncivil.com | |
| Address 4501A Santa Rosa Drive | City Midland | State Tx | Zip 79707 |

**Street Address:** See Attachment 'A'

**Legal Description** See Attachment 'A'
Lot: Block: Subdivision:

| | |
|---|---|
| **Current Zoning:** O1 | **Proposed Zone:** PD<br>*(List by tracts if more than one district is requested)* |

**Reason for Zone Change Request:** As directed by planning department to make zoning consistent with the main hospital campus.

**Present Use of Property:** Parking

**Proposed Use of Property:** Parking/New Professional Office Building

**How would this zone change affect the public health, safety and welfare?** No adverse affect

**Describe how conditions affecting the property have changed since present zoning designation:** No changes

**Submittal and Fees**

**Items to be submitted with this application form:**

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Site Plan
- Digital Copies of Site Plan (PDF/JPEG)

| **Signature** *(by property owner only – authorized agent must sign affidavit below)* | |
|---|---|
| Applicant (signature): | Date: 8/10/23 |
| Applicant (printed): Stephen Bowman (President/CEO - Midland Memorial Hospital) | |
| Property Owner (signature): | Date: 8/10/23 |
| Property Owner (printed): Stephen Bowman | |

*The Zone Change/Planned District Amendment/Site Plan Approval shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application or displayed during a public hearing, shall remain the property of the City of Midland.*

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appear Kyle Newton who, being by me duly sworn, upon oath says: That (s)he is the owner of _____ or authorized by Midland County Hospital District the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

Kyle Newton
Authorized Agent (*signature*)

Subscribed and sworn to before me, this 21 day of August, 2023, to certify which witness my hand and seal of office.

JUDY LYNN PEREZ
Notary ID #131479345
My Commission Expires
March 18, 2026

NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

| **FOR OFFICE USE ONLY** | |
|---|---|
| ☑ Property Owner Authorization | ☑ Dimensioned Site Plan |
| ☑ Application Fee | ☑ Plans in Digital Format (PDF/JPEG) |
| Check # 1563 | |
| Received By: Landon Ortega | Date: SEP 05 2023 |

****Application will not be considered for scheduling until reviewed by a planner.****

| **Signature** *(by property owner only – authorized agent must sign affidavit below)* | |
|---|---|
| Applicant (signature): Debbie P. Reese | Date: 8/10/2023 |
| Applicant (printed): Debbie P. Reese | |
| Property Owner (signature): Debbie P. Reese | Date: 8/10/2023 |
| Property Owner (printed): Debbie P. Reese | |

*The Zone Change/Planned District Amendment/Site Plan Approval shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application or displayed during a public hearing, shall remain the property of the City of Midland.*

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appear Kyle Newton who, being by me duly sworn, upon oath says: That (s)he is the owner of _____ or authorized by Debbie Parchman Reese, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

Kyle Newton
Authorized Agent (*signature*)

Subscribed and sworn to before me, this 21 day of August, 2023, to certify which witness my hand and seal of office.

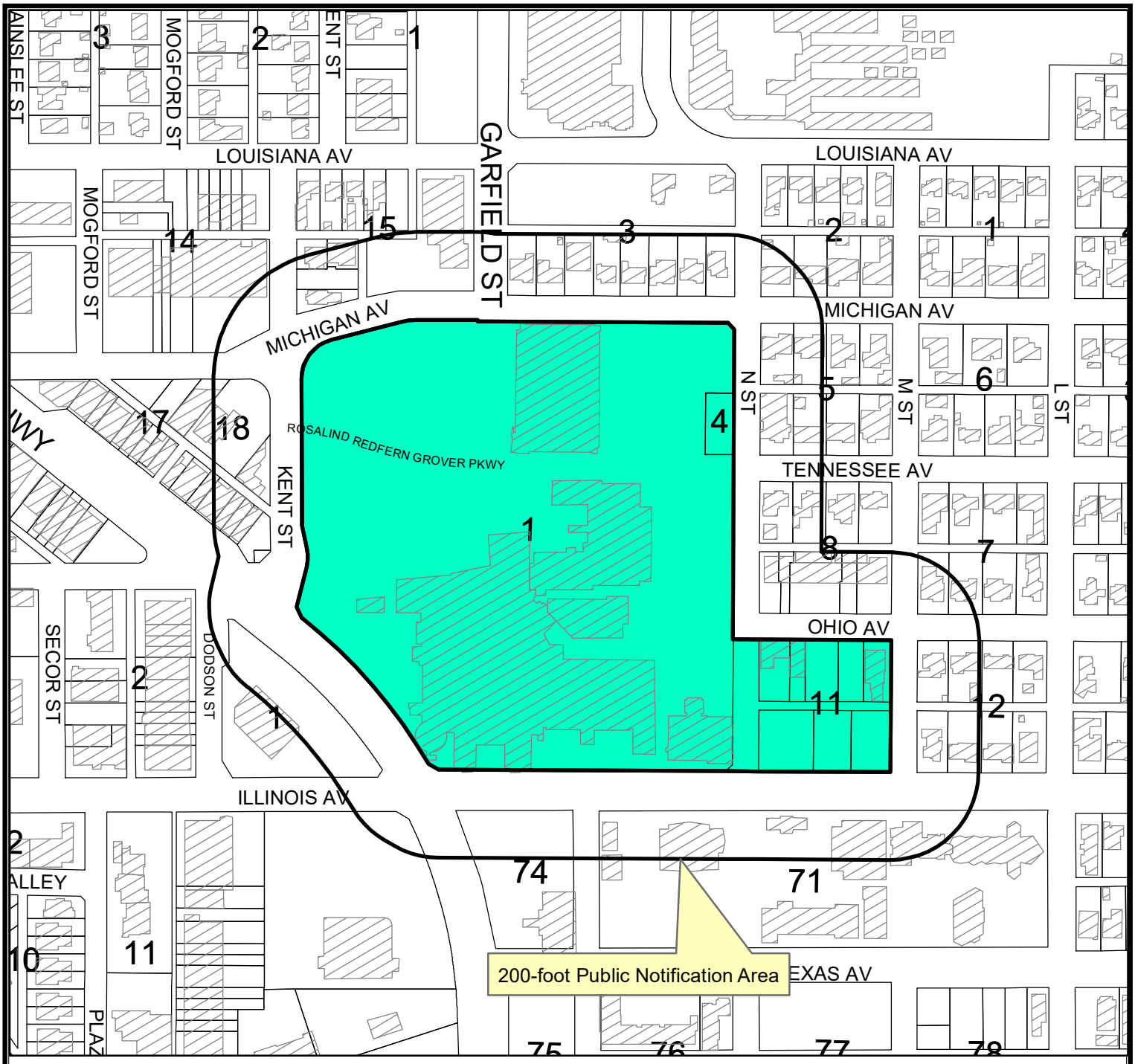
JUDY LYNN PEREZ
Notary ID #131479345
My Commission Expires
March 18, 2026

Judy Lynn Perez
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

**FOR OFFICE USE ONLY**

| | |
|---|---|
| ☐ Property Owner Authorization | ☐ Dimensioned Site Plan |
| ☐ Application Fee | ☐ Plans in Digital Format (PDF/JPEG) |
| Check # 1563 | |
| Received By: | Date: SEP 05 2023 |

****Application will not be considered for scheduling until reviewed by a planner.****




# LOCATION MAP

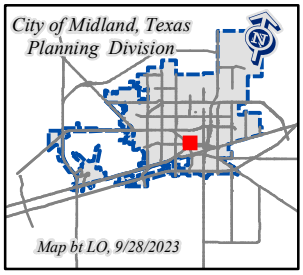
**Z-23-0342** **Scale: 1" = 3,895'**

Consider a request by Midland County Hospital District and Debbie Reese for a Zone Change from, PD, Planned Development District for a Medical Center and Hospital, in part, and O-1, Office District, in part, to PD, Planned Development District for a Medical Center and Hospital on a 23.93-acre tract of land out of Section 27, Block 39, T-1-S, T&P RR Co. Survey, City and County of Midland, Texas.

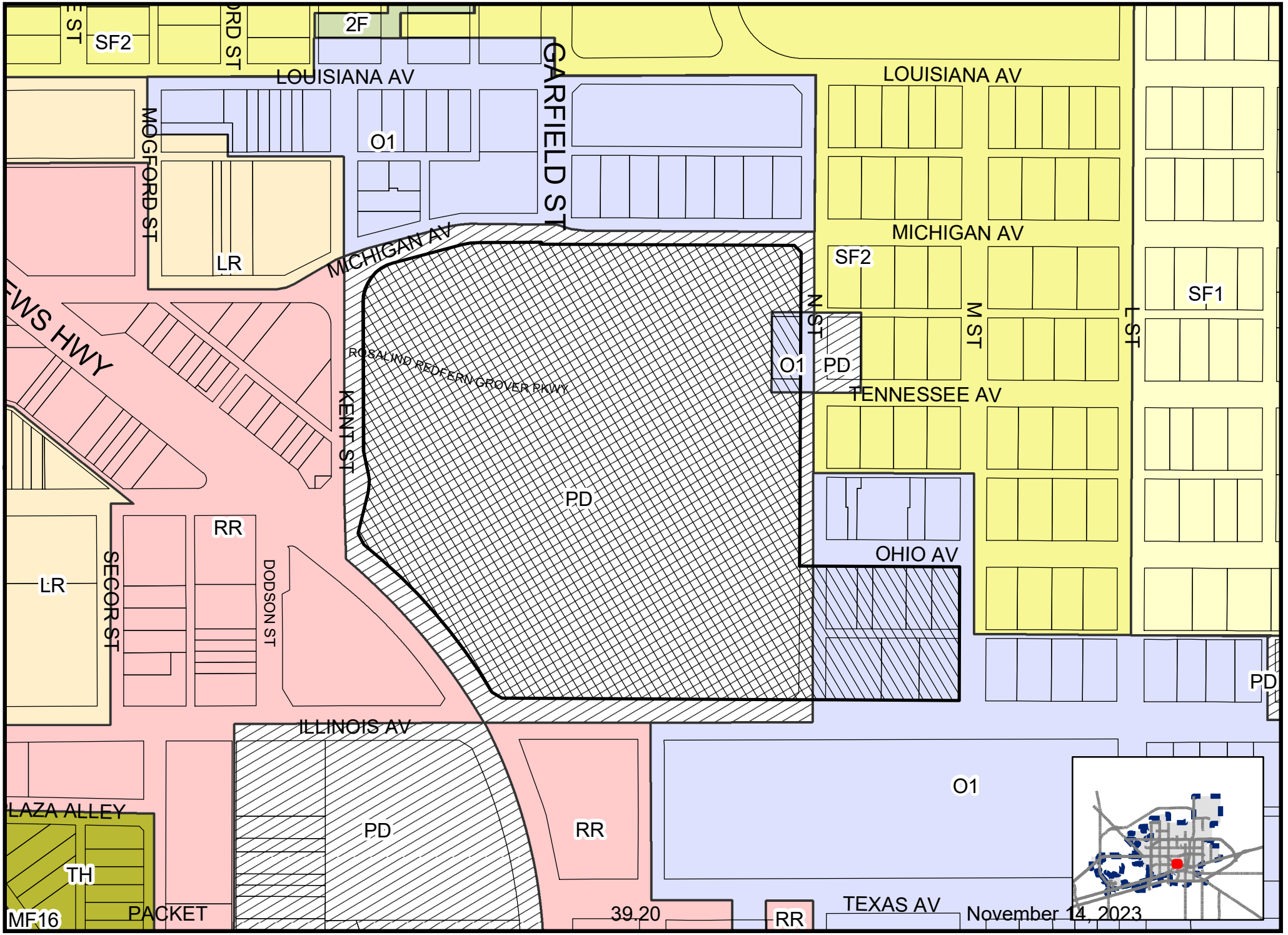
Generally located on the southeast corner of Kent Street and West Michigan Avenue. (Council District 3)

**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




©THE CITY OF MIDLAND - 2021
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND NOR IS IT DESIGNED TO BE USED AS THE ONLY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.




*Map By LO, 9/28/2023*

**Z-23-0342**

**Scale: 1" = 3,233'**

# ZONING MAP

© THE CITY OF MIDLAND - 2021: THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT, NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN. THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.









**ORDINANCE NO. 8738**

**AN ORDINANCE CHANGING THE ZONING CLASSIFICATION BY AMENDING CHAPTER ONE, TITLE XI, OF THE CITY CODE OF MIDLAND, TEXAS, BY PERMITTING A 25.06-ACRE TRACT OF LAND LOCATED IN SECTIONS 27 AND 28, BLOCK 39, T-1-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS, AND MORE SPECIFICALLY DESCRIBED IN SECTION ONE HEREOF, WHICH IS PRESENTLY ZONED O-1, OFFICE DISTRICT, IN PART, PD, PLANNED DISTRICT FOR AN OFFICE CENTER, IN PART, PD, PLANNED DISTRICT FOR A MEDICAL AND HOSPITAL DISTRICT, IN PART, AND LR-2, LOCAL RETAIL DISTRICT, IN PART, TO BE USED AS A PD, PLANNED DISTRICT FOR A MEDICAL AND HOSPITAL DISTRICT (GENERALLY LOCATED NORTH OF WEST ILLINOIS AVENUE AND SOUTH OF WEST MICHIGAN AVENUE AND EAST OF ANDREWS HIGHWAY AND KENT STREET AND WEST OF NORTH "N" STREET); SAID TRACT WILL INCLUDE 2.77-ACRES OF VACATED STREET AND ALLEY RIGHTS-OF-WAY (GENERALLY DESCRIBED AS GARFIELD STREET FROM MICHIGAN AVENUE TO OHIO AVENUE; OHIO AVENUE FROM GARFIELD STREET TO ANDREWS HIGHWAY; TENNESSEE AVENUE FROM "N" STREET TO GARFIELD STREET; THE EAST-WEST ALLEY IN BLOCK 4, HIGHLAND PARK ADDITION; AND THE NORTH-SOUTH ALLEY IN BLOCKS 15 AND 16, GARDENS ADDITION) PROVIDING FOR SUCH USE TO BE SUBJECT TO CERTAIN SPECIAL CONDITIONS AND RESTRICTIONS AS SET OUT HEREIN, AND EXPRESSLY REPEALING ORDINANCE NOS. 5261 AND 5576; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION**

**WHEREAS**, the City Planning and Zoning Commission and the Governing Body of the City of Midland, in compliance with the City Charter and the State law with reference to the creation of "Planned Districts" under the zoning ordinance regulations and zoning map, have given the requisite notices by United States mail, publication and otherwise; and after a full and fair hearing to all of the property owners generally and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body finds that the public health, safety and general welfare will be best served by the

# PLANNING AND ZONING COMMISSION

## June 1, 2009

**CASE:** Z-09-007.

**REQUEST:** Consider a request for a zone change from LR-2, Local Retail District; O-1, Office District; PD, Planned District for an Office Center; and PD, Planned District for a Medical Center and Hospital to PD, Planned District for a Medical Center and Hospital (including a heliport).

**APPLICANT/OWNER:** Midland County Hospital District.

**LEGAL DESCRIPTION:** All of Midland Memorial Hospital, Section 1; Lots 1 – 15, Block 4, and the Memorial Hospital Tract, Highland Park Addition; Lots 1 – 8 and Lots 12 - 15, Block 16, Lot 13 and 14, and the remainders of Lot 12 & 15, Block 15, A Sub-Division of Blocks 15 & 16 Gardens Addition; the 2.339-acre remainder of Block 31, The Gardens Addition; a 0.546-acre tract of land out of Section 27, Block 39, T-1-S, T & P RR Co. Survey; and 2.77-acres of vacated street and alley rights-of-way, City and County of Midland, Texas.

**LOCATION:** Generally bound by W. Illinois Avenue, Andrews Highway, Kent Street, W. Michigan Avenue and "N" Street.

**ASSOCIATED CASE:** P-08-089, Midland Memorial Hospital, Section 2.

**DETAILS OF REQUEST:**

1. Midland citizens recently approved a bond to finance the expansion of Midland Memorial Hospital. The land occupied by the existing hospital is zoned Planned District for a Medical Center and Hospital. The expansion area includes land that is zoned O-1 District, Planned District for an Office Center and LR-2 District. Since a detailed development plan has been prepared, they have elected to request a zone change that would place all of their land within a single zoning ordinance. This will aid in the administration of the zoning. The application includes exhibits illustrating a plan view and three elevation views. Another exhibit shows a potential landscaping plan, but it is included only for illustrative purposes. This new facility will also include a landing area for medical helicopters. Also scheduled on the June 1st agenda is an application to replat all of their property into a single lot.

**ANALYSIS:**

2. Exhibit A illustrates all of the land the District has acquired and the existing hospital building. The principal additions include a medical tower with an initial height of seven stories, but with a potential of 10 stories; a parking garage with up to five stories; additional surface parking; and a heliport. The proposed expansion requires the vacation of several portions of right-of-way, including Garfield Street, Tennessee Avenue and two alleys. Southbound traffic on Garfield Street is planned to be routed westward along Michigan Avenue, where it can continue westward or southward on Kent Street, to Andrews Highway. The associated plat will dedicate additional right-of-way for Michigan and Kent to accommodate the rerouted traffic. The staff has reviewed the associated traffic pattern, and we are satisfied that this plan will maintain safe and efficient traffic flow around the hospital. The Fire Marshal's office reviewed the initial site plan, and recommended several changes to enhance accessibility to the building in the event of fire and rescue services are needed. The attached site plan includes those recommended changes.

   The seven-story patient tower will abut north side of the existing hospital, thereby joining the two structures into a single building. The new tower will also connect to the existing medical building at the southeast corner of Garfield Street and Tennessee. Exhibit A indicates that three additional stories may be added to the tower at some future date. An existing service entrance on Kent Street will be maintained. Just north of the service entrance is the heliport. The Zoning Code lists a specific use permit for a heliport, but since the rezoning is to a planned district, the same level of review can occur. Section 13-4 of the City Code includes a list of definitions and regulations pertaining to heliports. Of the four types of heliports defined, the "helistop-limited use" definition best describes the proposed heliport. This section of the Code is very technical, and establishes requirements for the minimum clear area, approach angles, fueling and fire safety. It also requires approval by the Airport Planning Board and the Director of Aviation. We recommend that the design, construction and operation conform to all regulations of the City Code and the Federal Aviation Administration.

   The applicant has submitted a 34-page parking analysis from an engineering firm that specializes in parking studies. Midland's Zoning Code currently states that one parking space is needed for every three hospital beds. The staff is convinced that this standard is out of date, and does not provide sufficient parking to meet today's requirements. Hospitals are very labor intensive, and require more parking than our Code specifies. Many cities require between 1.5 and 2 spaces for each bed. Because of the services offered in a modern hospital, parking based on a patient bed count does not provide an accurate account of required parking. The parking study provided

by the applicant goes into great detail regarding current parking availability and anticipated parking demand. This engineering firm conducted a parking study on Wednesday, January 14th, 2009. On this day, the peak parking demand occurred at 11:00 a.m. when 990 vehicles were parked in the existing 1,217 available spaces (including 181 on-street spaces). The occupancy level was 81.3 percent (a surplus of 138 spaces). The report states that from a practical standpoint, a 90 percent occupancy for patient and visitor parking and 95 percent occupancy for employee parking are considered effectively full. The report states that by 2012, when the project would be complete, there would be a parking space deficit of 440 spaces due to the added floor area; a displacement of 122 existing spaces due to the expansion; and an addition of 115 new surface spaces. Therefore, there will be a need for 447 additional spaces. The three-level parking garage will add 456 spaces, and it can be increased to a maximum of five levels. In summary, we are satisfied that the parking demand will be met with the additional surface and multi-level parking proposed with this plan.

3. Exhibits B and C illustrate the different elevation views of the proposed patient tower. The principal exterior building material will be glazing. Additionally, architectural metal panels and EIFS will be used. The maximum building height for the first phase will be 126 feet, with a maximum height of 174 feet for the second phase. Exhibit D shows elevations of the parking structure. Exterior building materials include concrete, glass and architectural metal panels. The staff is satisfied that the architectural elements and building materials will result is an attractive centerpiece for Midland's principal hospital. Exhibit E is a rendered landscape plan. This exhibit is for illustrative use only. A detailed landscape plan will be reviewed through the building permit process.

**STAFF RECOMMENDATION:**

**We recommend approval of this request for a zone change on the above-described property to PD, Planned District for a Medical Center and Hospital, subject to the following conditions:**

**A. This property shall be subject to the regulations of the O-2. Office District.**

**B. That the development of this property for a hospital shall conform to the conditions shown on Exhibits A, B, C and D in all respects, except as otherwise stated below.**

**C. A Certificate of Occupancy shall not be issued for the hospital tower until the three-story parking garage is completed.**

D. **The design and operation of the heliport shall comply with all regulations established by the City of Midland and the FAA. It shall only be used in association with the normal operation of the hospital.**

E. **The parking plan shown on Exhibit A shall be considered illustrative, with the minimum number of spaced required determined through the building permit process.**

F. **Ordinances 5261 and 5576 shall be repealed.**

Cameron Walker, AICP
Planning Division Manager
Department of Development Services

Jim Compton, Senior Planner
Department of Development Services

**Attachments:**

Application
Maps
Exhibits A, B, C, D and E

Case Number: Z-09-007

# CITY OF MIDLAND
## Planning Division

## APPLICATION TO CHANGE ZONING CLASSIFICATION

Midland County Hospital District — 432-685-4222
**Applicant Name** — Contact #s

2200 W. Illinois — Midland, Texas 79701
Address — Zip Code

(Same as Applicant)
**Property Owner Name** — Contact #s

Address — Zip Code

Parkhill, Smith & Cooper, Inc. — (432) 697-1447
**Representative Name** — Contact #s

1700 W. Wall, Ste 100, Midland, Texas — 79701
Address — Zip Code

Street address and Legal Description of property (complete Lot, Block, and Subdivision, or if unplatted, attach a Metes and Bounds description with surveyor's seal). Describe by tracts if more than one zoning district is requested: Being a 21.56 ac Replat of Midland Memorial Hospital Section 1, Lots 1-15, Block 4 and the Remainder of Blocks 9 & 10, Highland Park Addition, and Lots 1-8, 12-15, Block 16, Lots 12-15, Block 15, and the Remainder of Block 31, Gardens Addition, to the City of Midland, Texas

PRESENT ZONE: PDMC, PDOC, LR2, 01 REQUESTED ZONE: PDMC
(List by tracts if more than one district is requested)

Reason for Zone Change or PD Amendment: Preparation for construction of a new patient tower, parking garage, and site improvements

Present Use of Property: Hospital Campus

Proposed Use of Property: Hospital Campus

How will zone change affect the public health, safety and welfare? It will improve safety for pedestrians at hospital and the basic welfare of the community

Describe how conditions affecting the property have changed since present zoning designation: Proposal for a new patient tower.

Will a Specific Use Permit with Term for alcoholic beverages sales be needed: ___ Yes _X_ No

**APPLICATION FEES:**

- Single, standard zone change: **$400**. Multiple, standard zone change: add **$100** per district.
- Single PD, Planned District zone change: **$550**. Multiple PD proposal: add **$100** per district.

*80% of fee will be refunded if no P&Z public hearing is called; if no City Council public hearing is called, then 30% of fee will be refunded.*

- If a Traffic Impact Analysis is required, a fee of up to $500.00 will be assessed.

**SITE PLAN SUBMITTALS** *(if applicable)*:

16 copies of the PD site plan: X

Site Plan on a CD in .pdf and .jpg format: X

**SIGNATURE** *(by property owner only - authorized agent must sign affidavit below)*

Property Owner (signature): _____ Date: _____

---

**If an Agent is authorized by the property owner to file and execute the application on behalf of the property owner, the Agent must complete the affidavit below.**

STATE of TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared Eric L. West, P.E. who, being by me duly sworn, upon oath says: That (s)he is authorized by Midland County Hospital District the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

Eric L. West
Authorized Agent (signature)

Subscribed and sworn to before me, this 3rd day of April, 20 09, to certify which witness my hand and seal of office.

Sheri Mullins
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

FOR OFFICE USE ONLY
Rec'd By: JC Date: 4/28/09
Assigned: JC
For: P&Z On: 5/10/09 6/11/09

SHERI MULLINS
Notary Public, State of Texas
My Commission Expires
September 30, 2010

****Application will not be considered for scheduling until reviewed by a planner.****




Consider a zone change from LR-2, Local Retail District on Lots 1-8 and Lot 12 Block 16, and Lot 13 and the remainder of Lot 12, Block 15, A Sub-Division of Blocks 15 & 16 Gardens Addition; and Lots 1 - 3, Block 2, Midland Memorial Hospital, Section 1; from O-1, Office District on Lots 1 - 15, Block 4, Highland Park Addition; Lots 13 - 15, Block 16 and Lot 14 and the remainder of Lot 15, Block 15, A Sub-Division of Blocks 15 & 16 Gardens Addition; from PD, Planned District for an Office Center on Lot 1, Block 1, Midland Memorial Hospital, Section 1: from PD, Planned District for Medical Center and Hospital on the Memorial Hospital Tract, Highland Park Addition; the 2.339-acre remainder of Block 31, The Gardens Addition; and a 0.546-acre tract of land out of Section 27, Block 39, T-1-S, T & P RR Co. Survey, and 2.77-acres of vacated street and alley rights-of-way, City and County of Midland, Texas, to a PD, Planned District for a Medical Center and Hospital.

## PROPERTY OWNER NOTIFICATION MAP

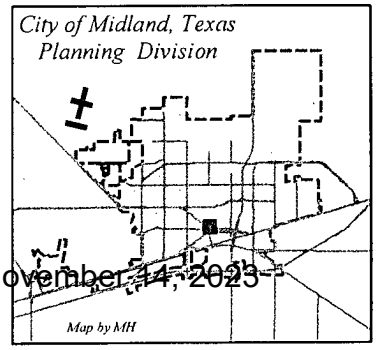
**Z - 09 - 007**

**Scale: 1" = 250'**

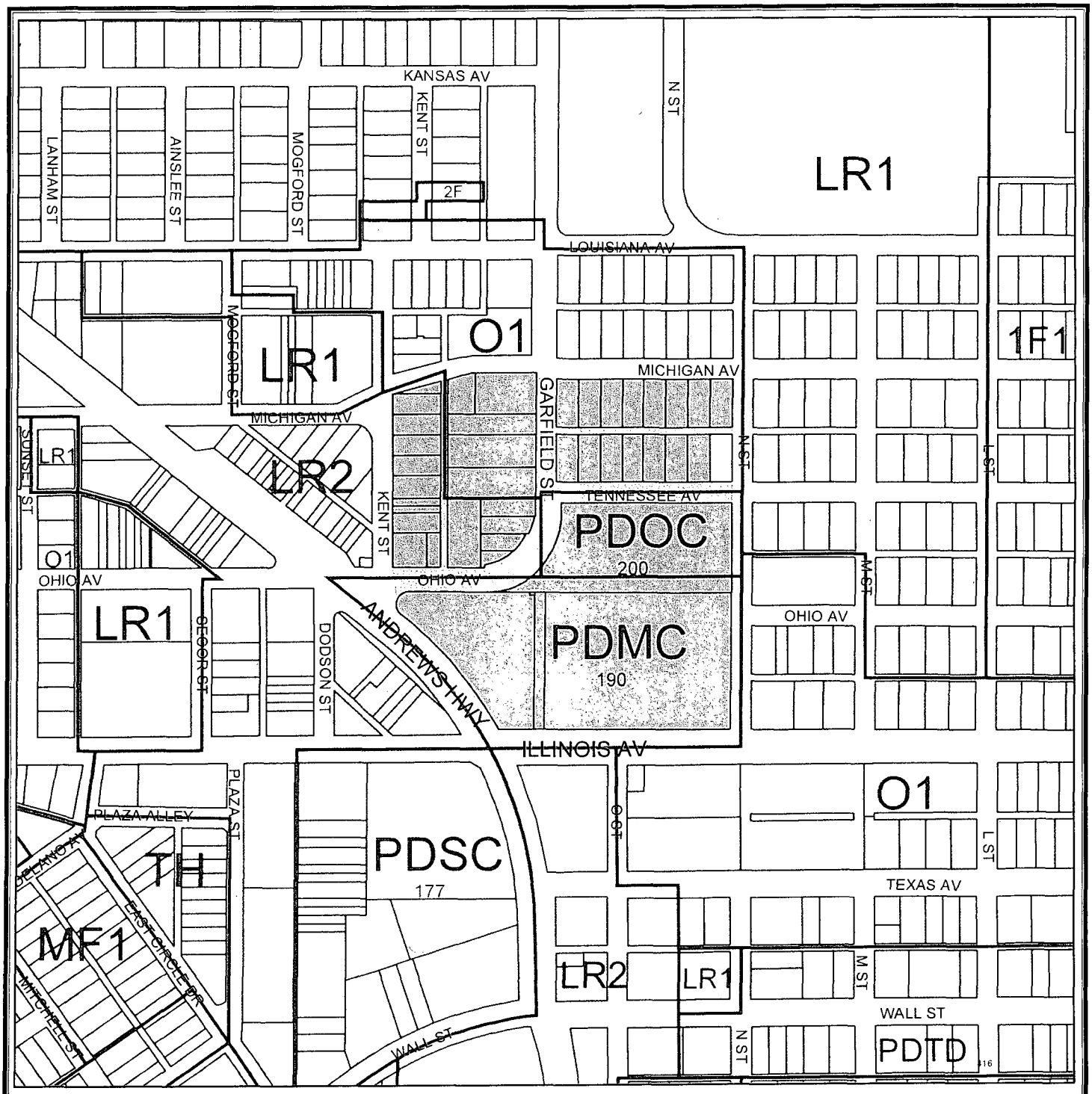
**LEGEND**

- CITY LIMITS
- 200 FT. LEGAL NOTICE LIMIT
- PARCEL
- PUBLIC BLDGS
- PRIVATE BLDGS
- ACCESSORY BLDGS
- VACATED RIGHTS-OF-WAY

*City of Midland, Texas*
*Planning Division*



*Map by MH*




# ZONING MAP

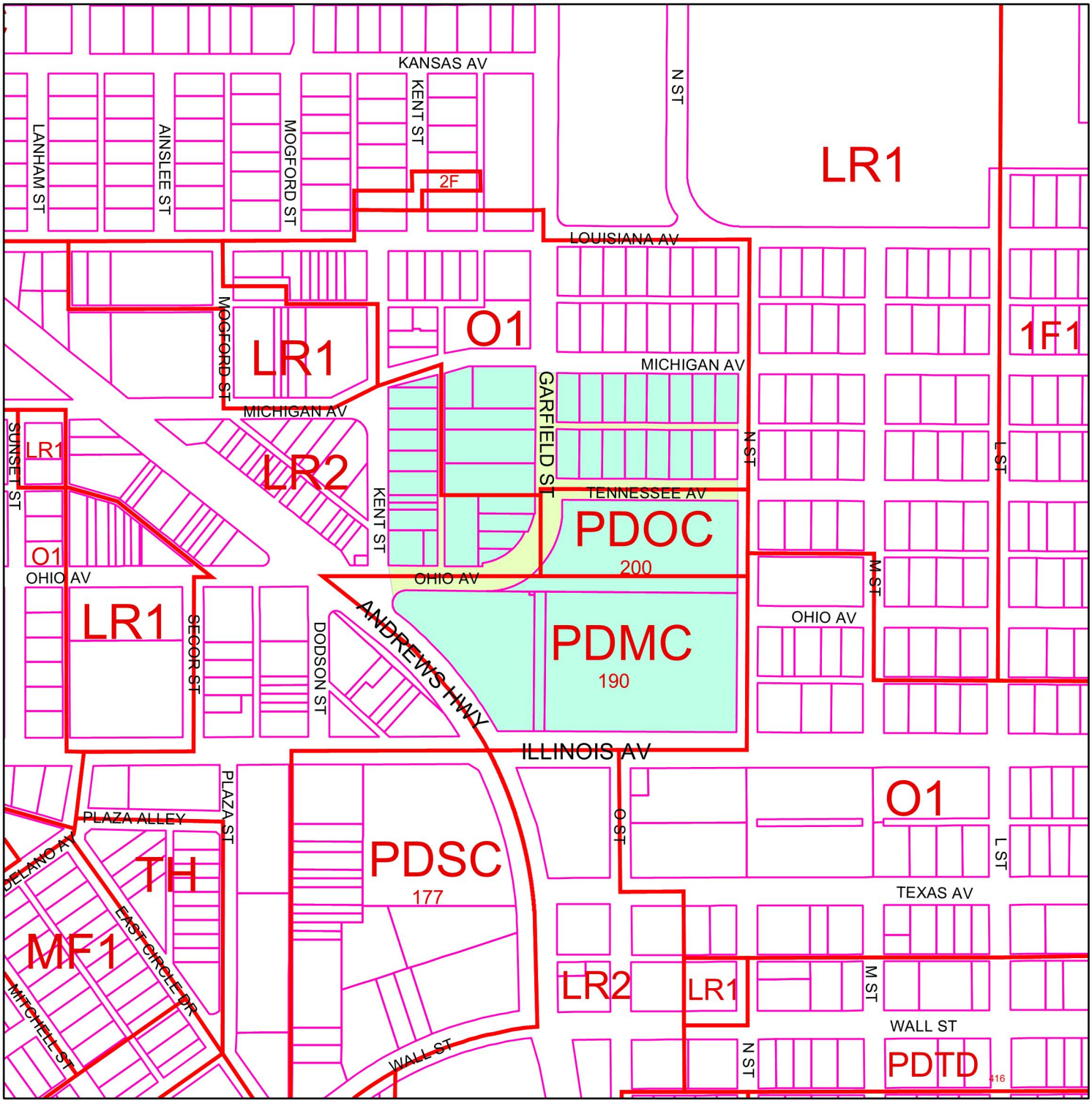
Consider a zone change from LR-2, Local Retail District on Lots 1-8 and Lot 12 Block 16, and Lot 13 and the remainder of Lot 12, Block 15, A Sub-Division of Blocks 15 & 16 Gardens Addition; and Lots 1 - 3, Block 2, Midland Memorial Hospital, Section 1; from O-1, Office District on Lots 1 - 15, Block 4, Highland Park Addition; Lots 13 - 15, Block 16 and Lot 14 and the remainder of Lot 15, Block 15, A Sub-Division of Blocks 15 & 16 Gardens Addition; from PD, Planned District for an Office Center on Lot 1, Block 1, Midland Memorial Hospital, Section 1: from PD, Planned District for Medical Center and Hospital on the Memorial Hospital Tract, Highland Park Addition; the 2.339-acre remainder of Block 31, The Gardens Addition; and a 0.546-acre tract of land out of Section 27, Block 39, T-1-S, T & P RR Co. Survey; and 2.77-acres of vacated street and alley rights-of-way, City and County of Midland, Texas, to a PD, Planned District for a Medical Center and Hospital.

**Z - 09 - 007** **LEGEND** **Scale: 1" = 400'**

ZONING PARCELS VACATED RIGHTS-OF-WAY

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, 02 | OFFICE |
| CE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| 1F1, 1F2, 1F3 | ONE-FAMILY DWELLING | LR1, LR2 ,LR3 | LOCAL RETAIL |
| MH | MOBILE HOME DWELLING | GR | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |




# ZONING MAP

Consider a zone change from LR-2, Local Retail District on Lots 1-8 and Lot 12 Block 16, and Lot 13 and the remainder of Lot 12, Block 15, A Sub-Division of Blocks 15 & 16 Gardens Addition; and Lots 1 - 3, Block 2, Midland Memorial Hospital, Section 1; from O-1, Office District on Lots 1 - 15, Block 4, Highland Park Addition; Lots 13 - 15, Block 16 and Lot 14 and the remainder of Lot 15, Block 15, A Sub-Division of Blocks 15 & 16 Gardens Addition; from PD, Planned District for an Office Center on Lot 1, Block 1, Midland Memorial Hospital, Section 1: from PD, Planned District for Medical Center and Hospital on the Memorial Hospital Tract, Highland Park Addition; the 2.339-acre remainder of Block 31, The Gardens Addition; and a 0.546-acre tract of land out of Section 27, Block 38, T-1-S, T & P RR Co. Survey; and a 2.77-acres of vacated street and alley rights-of-way, City and County of Midland, Texas, to a PD, Planned District for a Medical Center and Hospital.

**Z - 09 - 007** **LEGEND** **Scale: 1" = 400'**

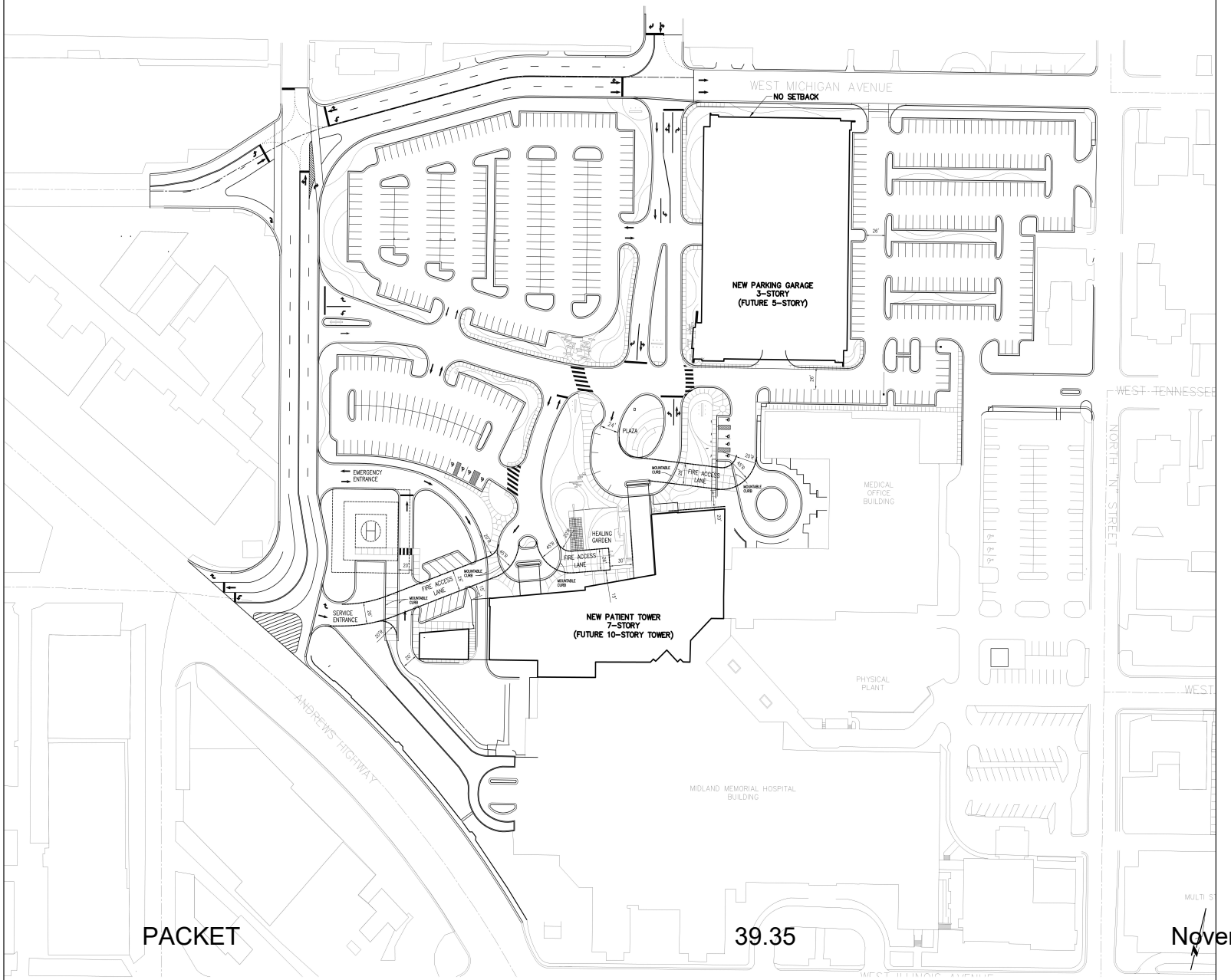
ZONING

PARCELS

VACATED RIGHTS-OF-WAY

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, O2 | OFFICE |
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| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |




A1 SITE LAYOUT
1"=50'

PACKET 39.35 November 14, 2023


PERKINS + WILL

10100 North Central Expressway
Suite 300
Dallas, Texas 75231
t 214.283.8700
f 214.283.8701
www.perkinswill.com


# MIDLAND MEMORIAL HOSPITAL EXPANSION

**MMH**
**2200 W. Illinois Ave. Midland, Texas 79701**


STRUCTURAL ENGINEER
L.A. FUESS PARTNERS, INC.
3333 LEE PARKWAY
SUITE 300
DALLAS, TX 75219
T: (214) 871-7010
F: (214) 969-0065

MECHANICAL/ELECTRICAL/PLUMBING ENGINEER
CCRD PARTNERS
3625 N. HALL STREET
SUITE 1300, LB 139
DALLAS, TX 75219
T: (214) 521-1661
F: (214) 521-1664

CIVIL ENGINEER
Parkhill, Smith & Cooper, Inc.
1700 West Wall Street
Suite 100
Midland, TX 79701
T: (432) 697-1447

PROJECT MANAGEMENT
ADAMS
1452 Hughes Road, Suite 200
Grapevine, TX 76051
T: (817) 410-5758
F: (817) 410-5759


KEYPLAN

| NO | ISSUE | DATE |
|---|---|---|

**Sheet Information**

| | |
|---|---|
| Date | Project Issue Date |
| Job Number | 05-9720-08 |
| Drawn | RSK |
| Checked | TRS |
| Approved | ELW |

**Title**

**SITE LAYOUT**

**Sheet**

**Ex01**

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I:\9720.08\CAD\01_CIVIL\Hospital_Site\Exhibits\new modification proposal 5.22.09\Ex01-9720.dwg, Ex01, , 5/26/2009 4:07:42 PM, eric, Bluebeam PDF9 Printer Highres.pc3, ANCH_E1_(30.00_X_42.00_Inches), 1:1






NOTES

1. THE FINAL LANDSCAPE PLAN WILL MEET OR EXCEED THE 10% LANDSCAPE AREA REQUIREMENT.
2. THE FINAL LANDSCAPE PLAN WILL MEET OR EXCEED REQUIREMENTS FOR PARKING LOT TREES AND STREET RIGHT OF WAY FRONTAGE TREES.

0 15 30 60

SCALE: 1"= 30'

3 APRIL, 2009



**MIDLAND MEMORIAL HOSPITAL**
MIDLAND, TEXAS

**LANDSCAPE PLAN**

PERKINS + WILL TalleyAssociates PSC

Planned District Medical Center (PD-MC)
MIDLAND MEMORIAL HOSPITAL

Legal Description of a 25.06 Acre Zoning Tract Located in Sections 27 and 28, Block 39, T-1-S, T. & P. RR. Co. Survey, City of Midland, Midland County, Texas

Boundary being further described by metes and bounds as follows:

BEGINNING at (N= 10,693,882.94' E= 1,749,081.08') the Southeast corner of Section 28 and the Southwest corner of Section 27, Block 39, T-1-S, based on the legal descriptions recorded in Volume 395, Page 37, Deed Records of Midland County, Texas, being a point on the South boundary line of this tract;

THENCE S75°48'07"W with the South line of said Section 28 within West Illinois Avenue, a distance of 158.84 feet to the intersection with the centerline of State Highway No. 158 being the most Southerly Southwest corner of this tract;

THENCE along the centerline of Andrews Highway or State Highway No. 158 being a 100 foot wide ROW recorded in Volume 55, Page 1, Deed Records, around a curve to the left in a Northwesterly direction with a radius of 1145.92 feet, a delta angle of 23°55'54", an arc length of 478.64 feet, and a chord length of 475.16 feet, which bears N53°57'57"W to a point of tangency of this tract and said State Highway No. 158;

THENCE N65°50'18"W with the centerline of said State Highway No. 158, a distance of 206.24 feet to the intersection with the centerline of West Ohio Avenue, being a 72 foot wide street comprised of the original 60 foot ROW dedicated by the Gardens Addition in Cabinet "D" Page 172, Plat Records of Midland County and a 12 foot strip dedicated in Volume 395, Page 37, Deed Records of Midland County, the most Westerly corner of this tract;

THENCE N75°19'36"E with the said centerline of said West Ohio Street a distance of 149.00 feet to the intersection with the centerline of Kent Street dedicated by plat of a Subdivision of Blocks 15 and 16, as recorded in Cabinet "C", Page 131, Plat Records of Midland County and an interior corner of this tract;

THENCE N14°40'24"W with the said centerline of said Kent Street, a distance of 558.33 feet to the intersection with centerline of West Michigan Avenue, as dedicated in Volume 470, Page 328, Page 329, and Page 331, Deed Records of Midland County and the Northwest corner of this tract;

THENCE N60°57'35"E with the said centerline of West Michigan Avenue based on the center of the existing curb and gutter, a distance of 287.29 feet to a point of deflection in said West Michigan Avenue;

THENCE N74°50'00"E continuing with the centerline of West Michigan Avenue, a distance of 198.81 feet to the intersection with the centerline of Garfield Street and near the common line of said Sections 27 and 28, being an exterior corner of said tract;

THENCE S14°25'34"E with the said centerline of Garfield Street, a distance of 17.67 feet to the intersection with centerline of West Michigan Avenue based on the plats of Highland Park as recorded in Volume 90, Page 45, and Volume 100, Page 580, Deed Records of Midland County, being an interior corner of this tract;

THENCE N75°48'07"E with said centerline of said West Michigan Avenue, a distance of 579.58 feet to the intersection with the centerline of North "N" Street based on the said plat of Highland Park and the Northeast corner of this tract;

THENCE S14°11'53"E with the centerline of said North "N" Street, a distance of 179.93 feet to an exterior corner of this tract;

THENCE S75°48'07"W with the centerline of an existing alley, a distance of 94.99 feet to an interior corner of this tract;

THENCE S14°11'53"E at 10.00 feet pass the Northwest corner of Lot 16, Block 4, Highland Park Addition, as recorded in said Volume 100, Page 580, Deed Records of Midland County, continuing with the West line of said Lot 16, and at 149.94 feet pass the Southwest corner of said Lot 16, continuing for a total distance of 179.93 feet to the intersection with the centerline of Tennessee Avenue based on the said plats of Highland Parkland an interior corner of this tract;

THENCE N75°48'07"E with the centerline of said Tennessee Avenue, a distance of 94.99 feet to the intersection with the said centerline of North "N" Street and an exterior corner of this tract;

THENCE S14°11'53"E with the centerline of said North "N" Street a distance of 752.19 feet to a point on the South boundary line of said Section 27 and the Southeast corner of this tract;

THENCE S75°48'07"W with the South boundary line of said Section 27 within the ROW of West Illinois Avenue, a distance of 575.99 feet to the Place of Beginning, containing an area of 25.06 Acres or 1,091,489 square feet.

Bearings, distances, and coordinates are relative to the Texas State Plane Coordinate System, NAD 1983/86, Central Zone, with a combine grid factor of 0.9998995, and a theta angle equal to -0°54'48.39" at U.S.C. & G. station "MIDLAND" with published values of Y= 10,690,154.70 and X= 1,746,696.78 in U.S. Survey Feet.

I, J. Stan Piper, Registered Professional Land Surveyor, do hereby certify that this legal description is based on an actual survey made by me or under my supervision, and that the same is true and correct to the best of my knowledge and ability as surveyed on the ground on various dates to June 16, 2009.

J. Stan Piper
Registered Professional Land Surveyor #1974

Prepared for:
Parkhill, Smith, and Cooper, Inc.
5214 Thomason Drive
Midland, TX 79703

PIPER SURVEYING COMPANY, BOX 60432, MIDLAND, TX 79711 (432) 550-7810

PACKET 39.38 November 14, 2020

Exhibit "D"

creation of a Planned District for a Medical and Hospital District, as set out hereinafter and subject to the conditions and restrictions set out hereinafter;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That Chapter 1, Title XI, of the City Code of Midland, Texas, and the official zoning map of the City of Midland, Texas, are hereby amended insofar as the hereinafter described property is concerned, which is presently zoned O-1, Office District, in part, PD, Planned District for an Office Center, in part, PD, Planned District for a Medical and Hospital District, in part, and LR-2, Local Retail District, in part, and it shall be used as an Planned District for a Hospital District, subject to the special conditions and restrictions hereinafter set out, said property being described as follows:

> A 25.06-acre tract of land located in Sections 27 and 28, Block 39, T-1-S, T&P RR Co. Survey, City and County of Midland, Texas, said tract being more specifically described by metes and bounds in Exhibit "D", which is attached hereto and incorporated herein.

**SECTION TWO.** That said property shall be subject to the following special conditions and restrictions:

1. That this property shall be subject to the regulations of the O-2, Office District, except as otherwise stated below.

2. That the development of this property for a hospital shall conform in all respects to the conditions shown on the site plan which attached hereto and incorporated herein as Exhibits "A", "B and "C".

3. That a Certificate of Occupancy shall not be issued for the hospital tower until the three-level parking garage is completed.

4. That the parking plan shown on Exhibit "A" shall be considered illustrative; the minimum number of required parking spaces shall be determined through the building permit process.

5. That the area indicated on Exhibit "A" for a heliport shall be considered as only showing the general location, and shall not be considered approval of a heliport as defined in Section 13-4 of the Midland City Code; no heliport shall be allowed until a specific use permit allowing such use is approved by the City Council.

6. That Ordinance Nos. 5261 and 5576 are hereby repealed.

**SECTION THREE.** That the definitions given in the zoning regulations contained in the City Code of the City of Midland, Texas, shall be applicable to such of those terms as are used herein.

**SECTION FOUR.** The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION FIVE.** If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION SIX.** The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION SEVEN.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the 23rd day of June, A.D., 2009; and passed to second reading on motion of Council member Trost, seconded by Council member Dufford, by the following vote:

Council members voting "AYE": Trost, Dufford, Morales, Morgan, Perry, Hailey and James

Council members voting "NAY": None

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member Trost, seconded by Council member Hailey, on the 25th day of August, A.D., 2009, at a regular meeting of the City Council:

Council members voting "AYE": Trost, Hailey, Morales, Perry, Dufford and James

Council members voting "NAY": None

PASSED AND APPROVED THIS 25th day of August, A.D., 2009.

W. Wesley Perry, Mayor

ATTEST:

Kaylah J. McCord, City Secretary

APPROVED AS TO FORM:

Keith Stretcher, City Attorney

Planned District Medical Center (PD-MC)
MIDLAND MEMORIAL HOSPITAL

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J. Stan Piper
Registered Professional Land Surveyor #1974

Prepared for:
Parkhill, Smith, and Cooper, Inc.
5214 Thomason Drive
Midland, TX 79703

PIPER SURVEYING COMPANY, BOX 60432, MIDLAND, TX 79711, (432) 550-7310

November 14, 2023

PACKET

Exhibit "D"

# City Council Agenda

Approved for Agenda:
**CSharp**
City Manager's Office

**MEETING DATE:** June 23, 2009

**TO:** CITY COUNCIL/CITY MANAGER

**FROM:** Cameron Walker, Planning Division Manager

**SUBJECT:** Z-09-007, Zone Change

**Purpose:**

Hold a public hearing at 11:12 a.m. and consider an ordinance on a request by Midland Memorial Hospital District for a zone change from PD, Planned District for a Medical Center and Hospital, LR-2 District, O-1 District and Planned District for an Office Center to PD, Planned District for a Medical Center and Hospital.

**Recommended City Council Action**

☒ Approve ☐ Deny ☐ Direction/Informational

**Fiscal Impact:**

N/A

**Discussion:**

Midland Memorial Hospital District was recently successful in passing a bond issue to allow expansion of the hospital. The District has applied for a zone change that would consolidate the entire campus in a single zoning ordinance. The application includes site plans, Exhibits A, B and C.

Exhibit A illustrates the location of a proposed seven-story tower, but includes the option for ten stories. Also shown is a three-level parking structure that could be increased to five levels. Additional surface parking is proposed, as well as a heliport to accommodate medical helicopters. To reduce traffic through the campus, portions of Garfield Street, Tennessee and Ohio Avenues and two alleys must be vacated. A separate application to vacate these rights-of-way must also be approved. Exhibits B and C are renderings of the completed hospital and landscaping plan. Principle exterior materials include glazing, EIFS and architectural metal panels.

This development is subject to the City's landscaping ordinance, and a detailed landscaping plan must be approved before a building permit can be issued.

The heliport will eliminate the need to use Memorial Stadium for emergency helicopter landings. Heliports can be allowed by approval of a specific use permit. Section 13-4 of the City Code contains regulations applicable to heliports. Our report to the Planning Commission stated that we hoped to include approval of a heliport as part of the planned district zoning. However, heliport regulations are complex, and require approval from the FAA as well as the Airport Board and the Director of Airports. The Director, Marv Esterly, indicates that some of Midland's regulations appear to be inconsistent with the City Code, and local Code amendments may be needed. In order to prevent delays in rezoning, the applicant has agreed to delete the heliport from this application, other than to show a general location. At some future date, the Hospital District will apply for a separate specific use permit for a heliport. We agree with this proposal, and the attached ordinance includes this condition.

The Planning Commission voted unanimously to support this request. Some opposition was voiced regarding the vacation of streets and the potential of increased traffic on a portion of Tennessee Avenue. We concur with the Commission's recommendation for approval.

Attachments:

Exhibits A, B, C

# Planning and Zoning Commission Meeting
# Minutes from June 1, 2009

**Z-09-007 - Hold a public hearing and consider a request by Midland County Hospital District for a *zone change* from LR-2, Local Retail District on Lots 1-8 and Lot 12, Block 16 and Lot 13 and the remainder of Lot 12, Block 15, a Sub-Division of Block 15 & 16 Gardens Addition; and Lots 1-3, Block 2, Midland Memorial Hospital, Section 1; from O-1, Office District on Lots 1-15, Block 4, Highland Park Addition; Lots 13-15, Block 16 and Lot 14 and the remainder of Lot 15, Block 15, A Sub-Division of Block 15 & 16 Garden Addition; from PD, Planned District for an Office Center on Lot 1, Block 1, Midland Memorial Hospital, Section 1; from PD, Planned District for Medical Center and Hospital on the Memorial Hospital Tract, Highland Park Addition; the 2.339-acre remainder of Block 31, T-1-S, T&P RR Co. Survey; and 2.77-acres of vacated street and alley rights-of way, City and County of Midland, Texas, to a PD, Planned District for a Medical Center and Hospital.**

Chairman Bergman asked if the applicant was present.

Mr. Eric West with Parkhill, Smith, & Cooper, spoke on behalf of the applicant. He stated that Midland County Hospital District submitted a proposed site plan for the Midland Memorial Tower project. This site plan noted 2 new structures: (1) a 7-story patient tower, and (2) a 3-story parking garage along with a medical helipad. An extensive parking study was done along with a traffic analysis. The primary concern is minimizing thru traffic within the Hospital campus.

Mr. Compton presented the staff report. He explained that the Midland Memorial Hospital is expanding. The expansion area includes land that is zoned O-1 District, Planned District for an Office Center and LR-2 District. Since a detailed development plan has been prepared, the Hospital elected to request a zone change that would place all of their land within a single zoning ordinance. Staff recommended approval of the request for a zone change to PD, Planned District for a Medical Center and Hospital, subject to Conditions A - F.

*Chairman Bergman opened the Public Hearing.*

Ms. Mary Collier, Executive Director of Gifts of Hope and Hope House, spoke in support of the Hospital expansion and new zoning request.

*Chairman Bergman asked if there was anyone opposed or needed additional information.*

Ms. Virginia Estes, 2000/2002 W. Tennessee, protested that the parking garage would empty out onto Tennessee. She was told that Tennessee was going to be terminated on the east side at "N" Street and asked if there could be a cul-de-sac or some sort of blockage of traffic on the east side of Tennessee.

Cindy Klatt, 408 N. Pecos, had a house on Louisiana. She wishes the City would not close any streets.
Mr. West stated that the proposed site plan for the Hospital Tower is the most adequate and efficient location site for this construction. The hospital was trying to eliminate thru campus traffic that Tennessee was generating.

*Chairman Bergman closed the Public Hearing.*

Chairman Bergman called for a motion.

Mr. Carney made a motion for approval of the request subject to Conditions A - F. Mr. Wilton seconded the motion and the motion passed unanimously.

# City Council Meeting

**Item Number:** 40

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Ron Jenkins, Oil and Gas Coordinator

**Subject:** **The proposed granting of oil and gas well permits to Permian Deep Rock Oil Co., LLC ("Operator") for the drilling of the following oil and gas wells: Charger 110 MIPA Unit #H110SX and Charger 120 MIPA Unit #H120MX; said wells being generally located between 2,280 feet and 2,310 feet west of Rankin Highway and between 483 and 520 feet south of West I-20 (DISTRICT 2) (DEVELOPMENT SERVICES)**

---

**Purpose:**

The proposed granting of oil and gas well permits to Permian Deep Rock Oil Co., LLC ("Operator") for the drilling of the following oil and gas wells: Charger 110 MIPA Unit #H110SX and Charger 120 MIPA Unit #H120MX; said wells being generally located between 2,280 feet and 2,310 feet west of Rankin Highway and between 483 and 520 feet south of West I-20. Council may consider these permits following a 30-day public comment period and at a regularly scheduled meeting. No notices of objection received.

**Recommended City Council Action:**

Directional / Informational

**Fiscal Impact:**

There is no cost to the City to process this application.

**Discussion:**

The Oil and Gas Advisory Committee has reviewed the well site in detail and recommends approval with updated exhibit. A 16 ft. sound wall will be used during drilling and completion operations being located on the south side of location. There have been permitted applications at this well pad requesting the same variances. The operator has a surface agreement with the surface owner. Receiving support of the Oil & Gas Advisory Committee, Permian Deep Rock

Oil is requesting the following variances:

(1) Permian Deep Rock Oil Company requests variance to residence or commercial structure:
Charger 110 MIPA Unit #H110SX of 315 feet.
Charger 120 MIPA Unit #H120MX of 309 feet.
(2) Permian Deep Rock Oil Company requests to allow for twenty-four-hour fracing operations.
(3) Permian Deep Rock Oil Company requests variance for fencing of the drill pad instead of each individual well
(4) Permian Deep Rock Oil Company requests a variance to the requirement of landscaping and irrigation due to no city water is available.
(5) Permian Deep Rock Oil Company requests variance to the Road Repair Agreement due to no city streets will be used.

Attachments: Applications; Location maps; Exhibit - Drill site map, Exhibit – Flow Line Location.

Morris William Jr.

City Manager's Office

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 09/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes ✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions within Charger Unit

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location): Surface use: Undeveloped Rangeland, service company yards**
**Surface ownership: Service company yards, hotel**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Charger 110 MIPA Unit #H110SX

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 203' FNL & 2280' FEL, Section 10
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations).* [See § J(16) and (20)].**

***ATTACHED AS EXHIBIT J* is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: No city roads will be used**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**Attached as Exhibit V: Applicants variances**

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas )

County of Midland )

Kyle Hammond , personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

Estella Pena
Notary Public, State of Texas

[S E A L]

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

SCALE: 1" = 300'

0' 150' 300'

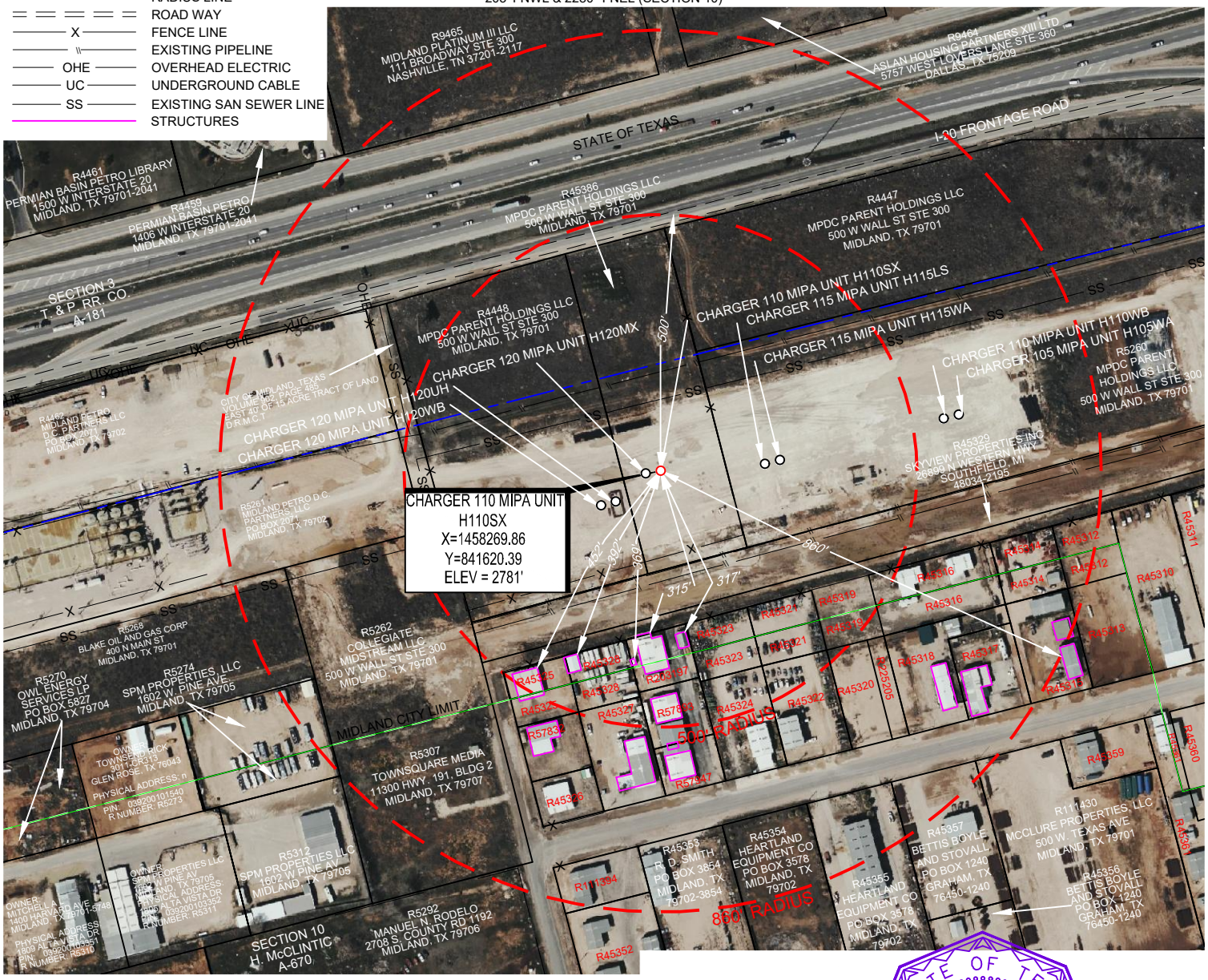
## LEGEND

- SURVEY/SECTION LINE
- RADIUS LINE
- ROAD WAY
- X — FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- UC — UNDERGROUND CABLE
- SS — EXISTING SAN SEWER LINE
- STRUCTURES

SECTION 10, T. & P. RR. CO. SURVEY, A-670
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **CHARGER 110 MIPA UNIT H110SX**
203' FNWL & 2280" FNEL (SECTION 10)

# PERMIAN DEEP ROCK OIL CO., L.L.C.




N


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LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM


STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL
LAND SURVEYOR

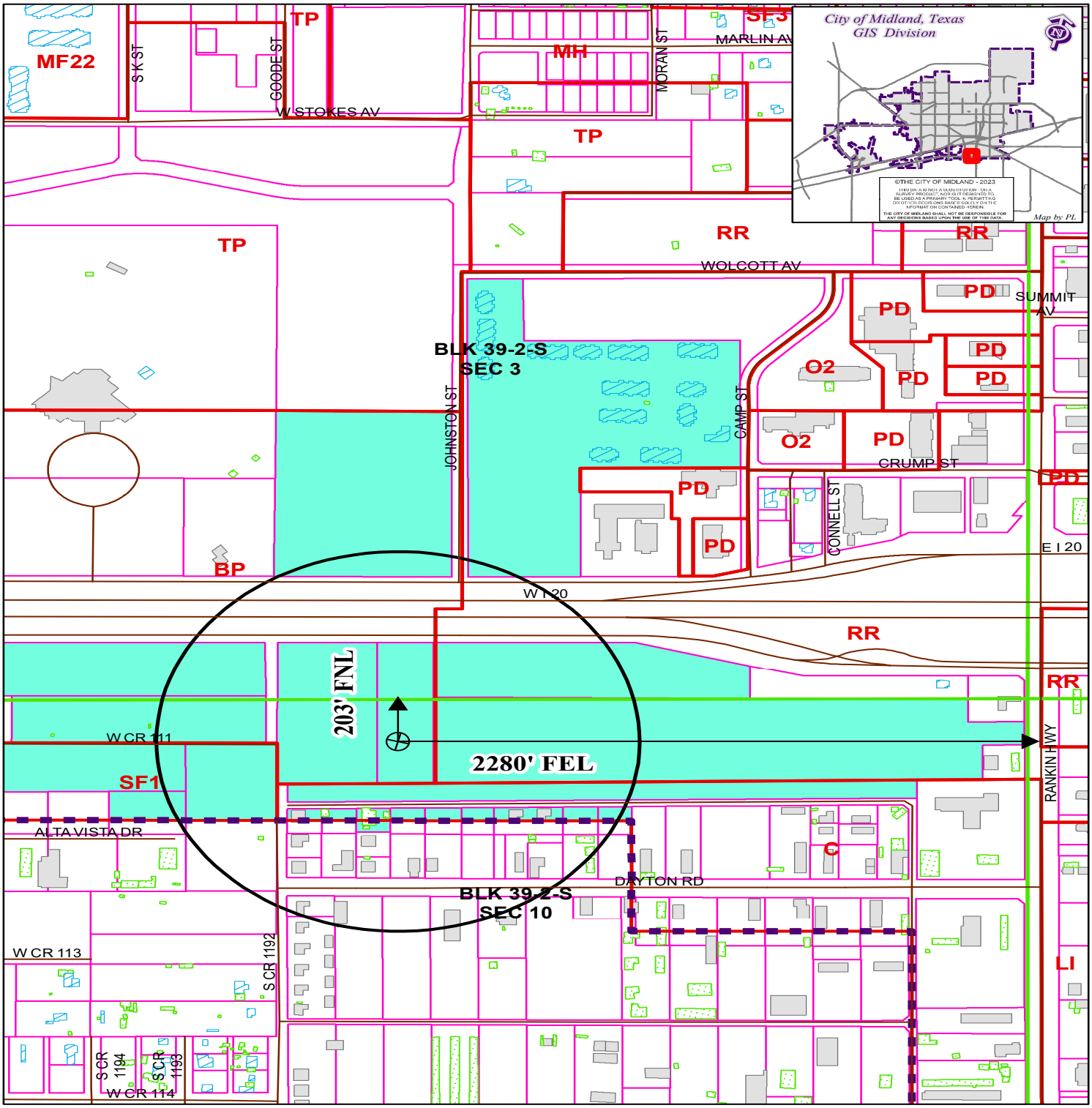
Jeffrey N. Lueders, R.P.L.S. No. 6512
JUNE 29, 2023

| CHARGER 110 MIPA UNITH110SX | REVISION: INT | DATE |
|---|---|---|
| | D.R.H. | 05/12/2021 |
| DATE: 02/16/2018 | D.R.H. | 05/25/2021 |
| FILE: CD_CHARGER_H110SX_REV5 | D.R.H. | 03/16/2022 |
| DRAWN BY: RACKET | MAL | 07/13/2023 |
| SHEET : 1 OF 4 | DRH | 08/21/2023 |

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. THIS PROPOSED LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED PERMIAN DEEP ROCK OIL CO., LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
4. OWNERSHIP INFORMATION SHOWN HEREON WAS TAKEN FROM THE CITY OF MIDLAND, TEXAS GIS SITE.
5. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.



S:\SURVEY\ARRINGTON\CHARGER_UNIT\FINAL_PRODUCTS\CITY_PERMITS\NAD_27\CD_CHARGER_H110SX_REV5.DWG 8/23/2023 11:41:53 AM dharris




# LOCATION AND ZONING MAP

**Oil - 054413 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 203' FNL and 2,280' FEL, Section 10, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 2,280 feet west of Rankin Highway and 485 feet south of West I-20.

**Charger 110 MIPA Unit #H110SX**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, O2 | OFFICE |
| RR | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| R1, R2, 1F3 | ONE-FAMILY DWELLING | CR1, CR2, CLRB | COMMUNITY RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 09/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes ✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

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**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions within Charger Unit

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location): Surface use: Undeveloped Rangeland, service company yards**
**Surface ownership: Service company yards, hotel**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Charger 120 MIPA Unit #H120MX

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 240' FNL & 2310' FEL, Section 10
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations).* [See § J(16) and (20)].**

***ATTACHED AS EXHIBIT J* is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: No city roads will be used**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

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***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**Attached as Exhibit V: Applicants variances**

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas )

County of Midland )

Kyle Hammond , personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

Estella Pena
Notary Public, State of Texas

[S E A L]

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

SCALE: 1" = 300'

0' 150' 300'

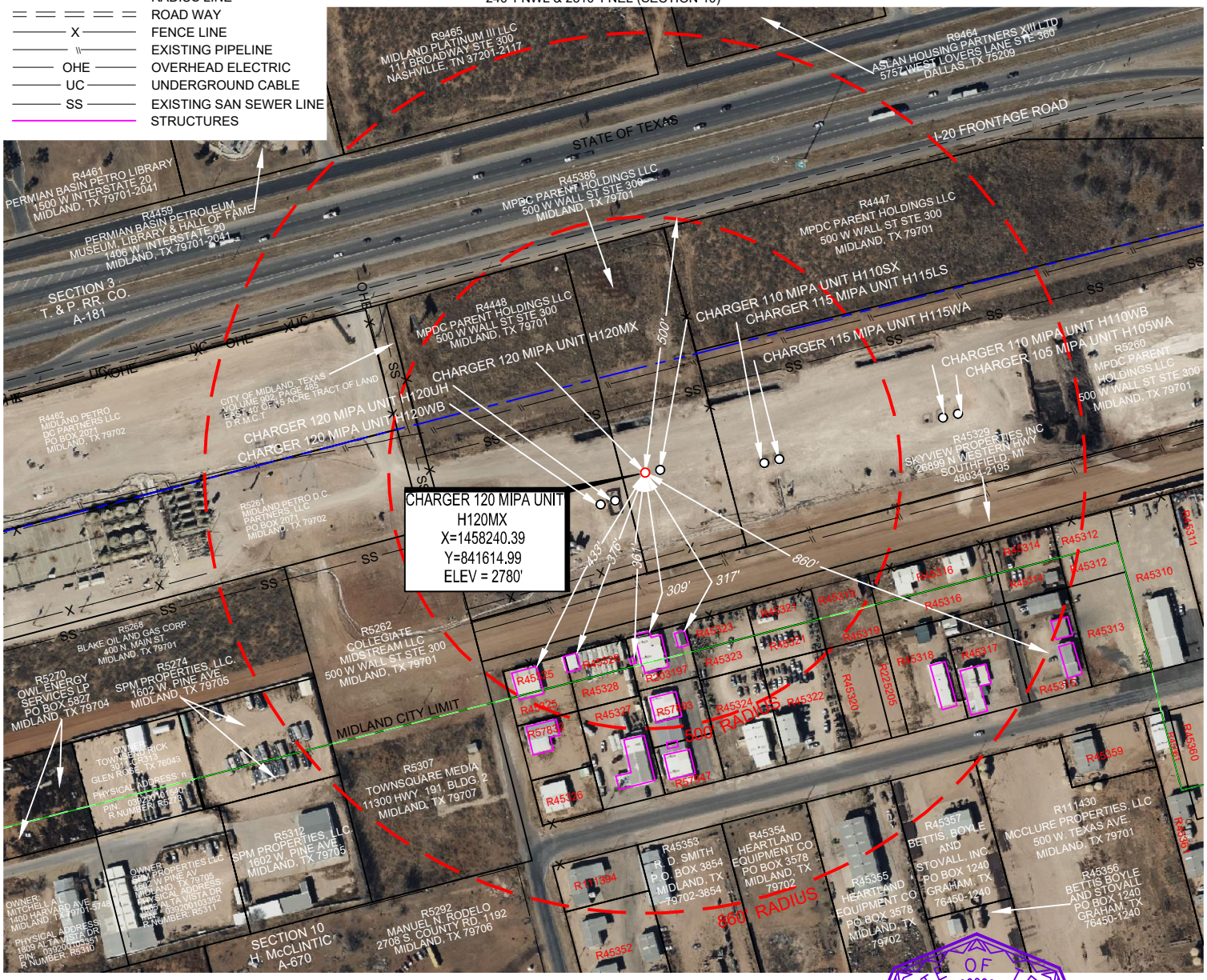
LEGEND

- SURVEY/SECTION LINE
- RADIUS LINE
- ROAD WAY
- X — FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- UC — UNDERGROUND CABLE
- SS — EXISTING SAN SEWER LINE
- STRUCTURES

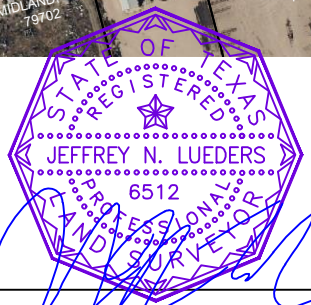
# SECTION 10, T. & P. RR. CO. SURVEY, A-670
# CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **CHARGER 120 MIPA UNIT H120MX**
240' FNWL & 2310' FNEL (SECTION 10)

## PERMIAN DEEP ROCK OIL CO., L.L.C.




N





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481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

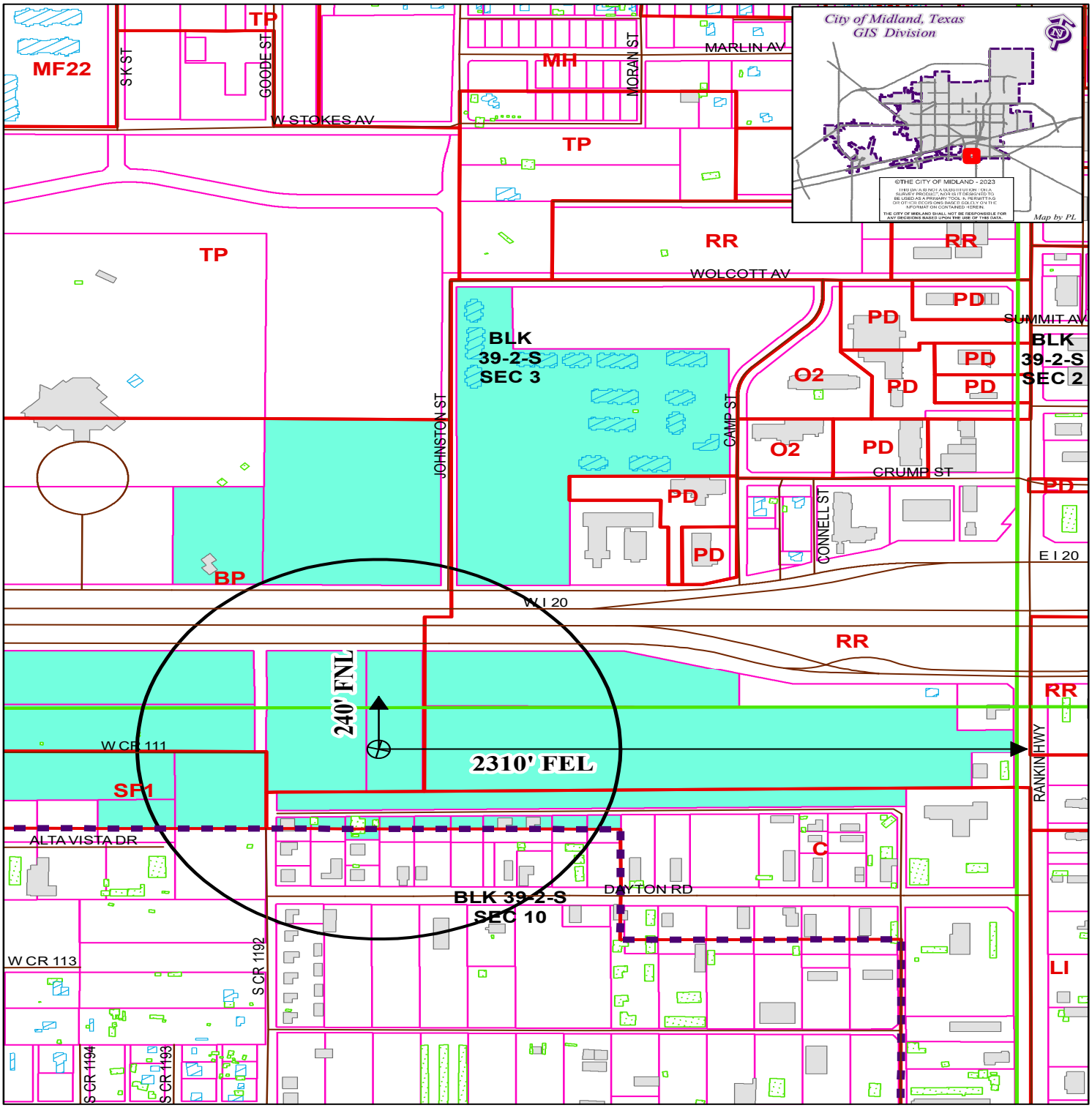

Jeffrey N. Lueders, R.P.L.S. No. 6512
JUNE 29, 2023

| | REVISION: | |
|---|---|---|
| CHARGER 120 MIPA UNITH120MX | JRH | 11/12/2018 |
| | D.R.H. | 05/03/2021 |
| DATE: 02/15/2018 | D.R.H. | 10/25/2021 |
| FILE: CD_CHARGER_A_H120MX_REV6 | D.R.H. | 03/16/2022 |
| DRAWN BY: RM | MAL | 07/12/2023 |
| SHEET : 1 OF 4 | DRH | 08/22/2023 |

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. THIS PROPOSED LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED PERMIAN DEEP ROCK OIL CO., LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
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5. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.



S:\SURVEY\ARRINGTON\CHARGER_UNIT\FINAL_PRODUCTS\CITY_PERMITS\NAD_27\CD_CHARGER_A_H120MX_REV6.DWG 8/23/2023 11:40:49 AM dharris




# LOCATION AND ZONING MAP

**Oil - 054414 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 240' FNL and 2,310' FEL, Section 10, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 2,310 feet west of Rankin Highway and 520 feet south of West I-20.

**Charger 120 MIPA Unit #H120MX**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

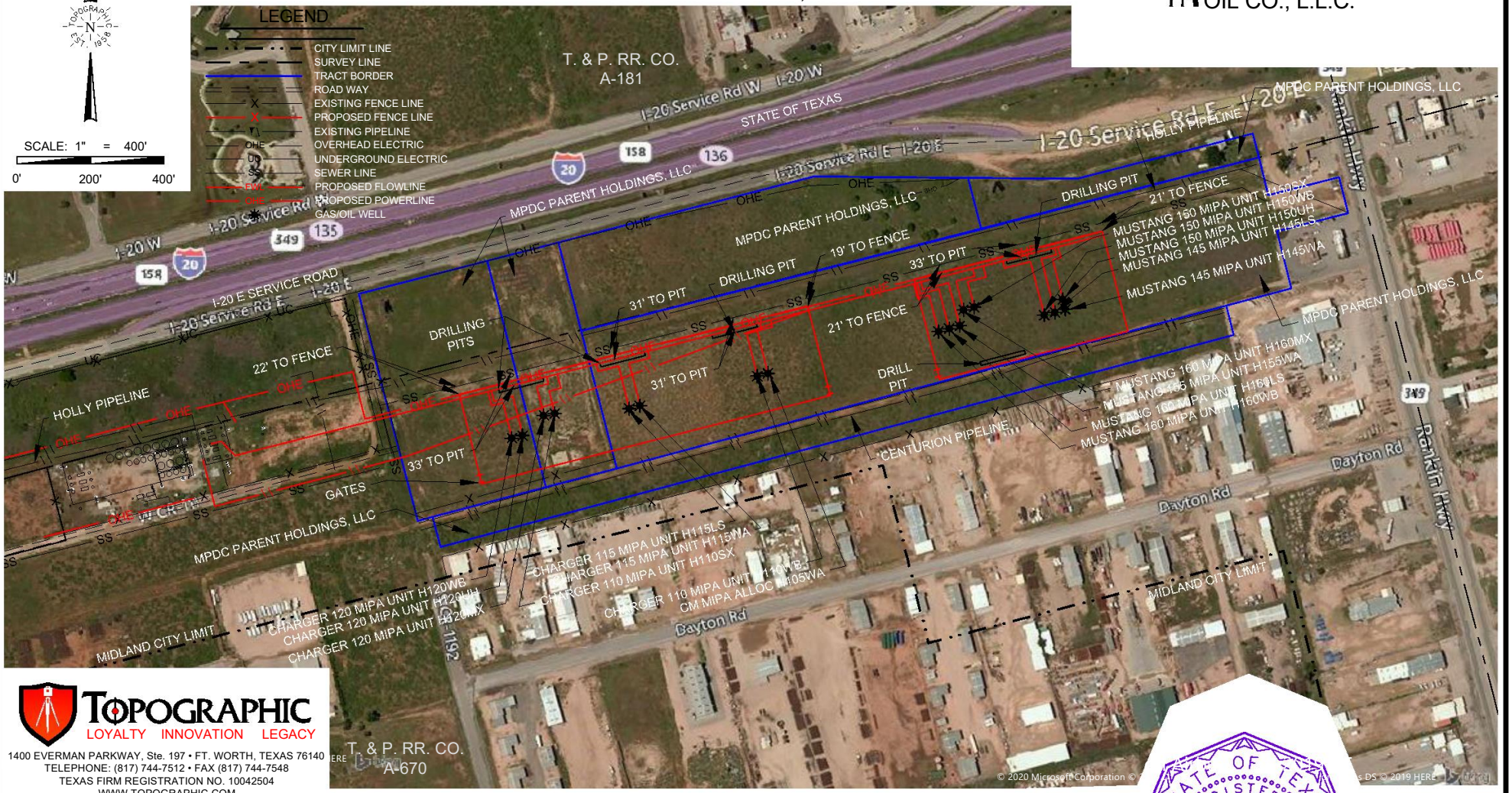
**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, O2 | OFFICE |
| RE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| SF1, SF2, 1F3 | ONE-FAMILY DWELLING | CR1, CR2, CLRB | LOCAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# EXHIBIT "G"

SECTION 3, BLOCK 39, T2S, T. & P. RR. CO. SURVEY, A-181 &
SECTION 10, BLOCK 39, T2S, H. MCCLINTIC SURVEY, A-670
MIDLAND COUNTY, TEXAS

PERMIAN DEEP ROCK OIL CO., L.L.C.





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LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM


| CHARGER UNIT CITY PERMIT | REVISION: | |
|---|---|---|
| | DRH | 06/16/21 |
| | DRH | 07/21/21 |
| | DRH | 08/09/21 |
| DATE: 03/28/2018 | DRH | 10/13/21 |
| FILE: SK_MUSTANG_UNIT_A_CHARGER_UNIT_A_PERMIT_REV21 | DRH | 12/10/21 |
| DRAWN BY: GJU | DRH | 06/27/2023 |
| SHEET : 3 OF 12 | DRH | 07/20/2023 |

NOTES:
1. ORIGINAL DOCUMENT SIZE: 11" X 8.5"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. CERTIFICATION IS MADE ONLY FOR PROPOSED UTILITIES AND SITES, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY PERMIAN DEEP ROCK OIL CO., L.L.C. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. ALL PROPOSED INFRASTRUCTURE SHOWN HEREON IS SOLELY FOR THE PURPOSE OF APPLYING FOR A PERMIT WITH THE CITY OF MIDLAND, TEXAS. THIS IS EXHIBIT IS NOT TO BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH THE T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THESE ARE FOR PLANNING PURPOSES ONLY.
5. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.
6. D.R.M.C.T. = DEED RECORDS MIDLAND COUNTY, TEXAS
7. C.C.O.R.M.C.T. = C. C. OFFICIAL RECORDS MIDLAND COUNTY, TEXAS

STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL LAND SURVEYOR

November 14, 2023

JEFFREY N. LUEDERS, R.P.L.S. NO. 6512
SURVEYED ON THE GROUND: JUNE 29, 2023



S:\SURVEY\ARRINGTON\MUSTANG_UNIT\FINAL_PRODUCTS\SKETCH\SK_MUSTANG_UNIT_A_CHARGER_UNIT_A_PERMIT_REV21.DWG 8/23/2023 1:04:16 PM dharris

# City Council Meeting

**Item Number:** 41

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Ron Jenkins, Oil and Gas Coordinator

**Subject:** **The proposed granting of oil and gas well permits to Permian Deep Rock Oil Co., LLC ("Operator") for the drilling of the following oil and gas wells: Mustang 120 MIPA Unit #H120MX; Mustang 130 MIPA Unit #H130SX; and Mustang 140 MIPA Unit #H140MX; said wells being generally located 1,625 feet east of Rankin Highway and between 625 and 675 feet south of West I-20 (DISTRICT 2) (DEVELOPMENT SERVICES)**

---

**Purpose:**

The proposed granting of oil and gas well permits to Permian Deep Rock Oil Co., LLC ("Operator") for the drilling of the following oil and gas wells: Mustang 120 MIPA Unit #H120MX; Mustang 130 MIPA Unit #H130SX; and Mustang 140 MIPA Unit #H140MX; said wells being generally located 1,625 feet east of Rankin Highway and between 625 and 675 feet south of West I-20. Council may consider these permits following a 30-day public comment period and at a regularly scheduled meeting. No notices of objection received.

**Recommended City Council Action:**

Directional / Informational

**Fiscal Impact:**

There is no cost to the City to process this application.

**Discussion:**

The Oil and Gas Advisory Committee has reviewed the well site in detail and recommends approval. A 16 ft. sound wall will be used during drilling and completion operations being located on the north side of location. Tank battery is located to the south outside the City limits. There have been previously permitted applications at this well pad requiring the same

variances. The operator has a surface agreement with the surface owner. Receiving support of the Oil & Gas Advisory Committee, Permian Deep Rock Oil is requesting the following variances:

(1) Permian Deep Rock Oil Company requests to allow for twenty-four-hour fracing operations.
(2) Permian Deep Rock Oil Company requests variance for fencing of the drill pad instead of each individual well
(3) Permian Deep Rock Oil Company requests a variance to the requirement of landscaping and irrigation due to no city water is available.
(4) Permian Deep Rock Oil Company requests variance to the Road Repair Agreement due to no city streets will be used.

Attachments: Applications; Location maps; Exhibit - Drill site map, Exhibit – Flow Line Location.

Morris William Jr.

City Manager's Office

MIDLAND
Planning Division

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 09/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes ✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location): Surface use: Undeveloped Rangeland, hotels, service company yards**
**Surface ownership: Hotels and service company yards:**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7).]**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Mustang 120 MIPA Unit #H120MX

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 260' FNL & 1625' FWL, Section 11
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations).* [See § J(16) and (20)].**

***ATTACHED AS EXHIBIT J* is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: No city roads will be used**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas )

County of Midland )

Kyle Hammond , personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

Estella Pena
Notary Public, State of Texas

[S E A L]

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

SCALE: 1" = 300'

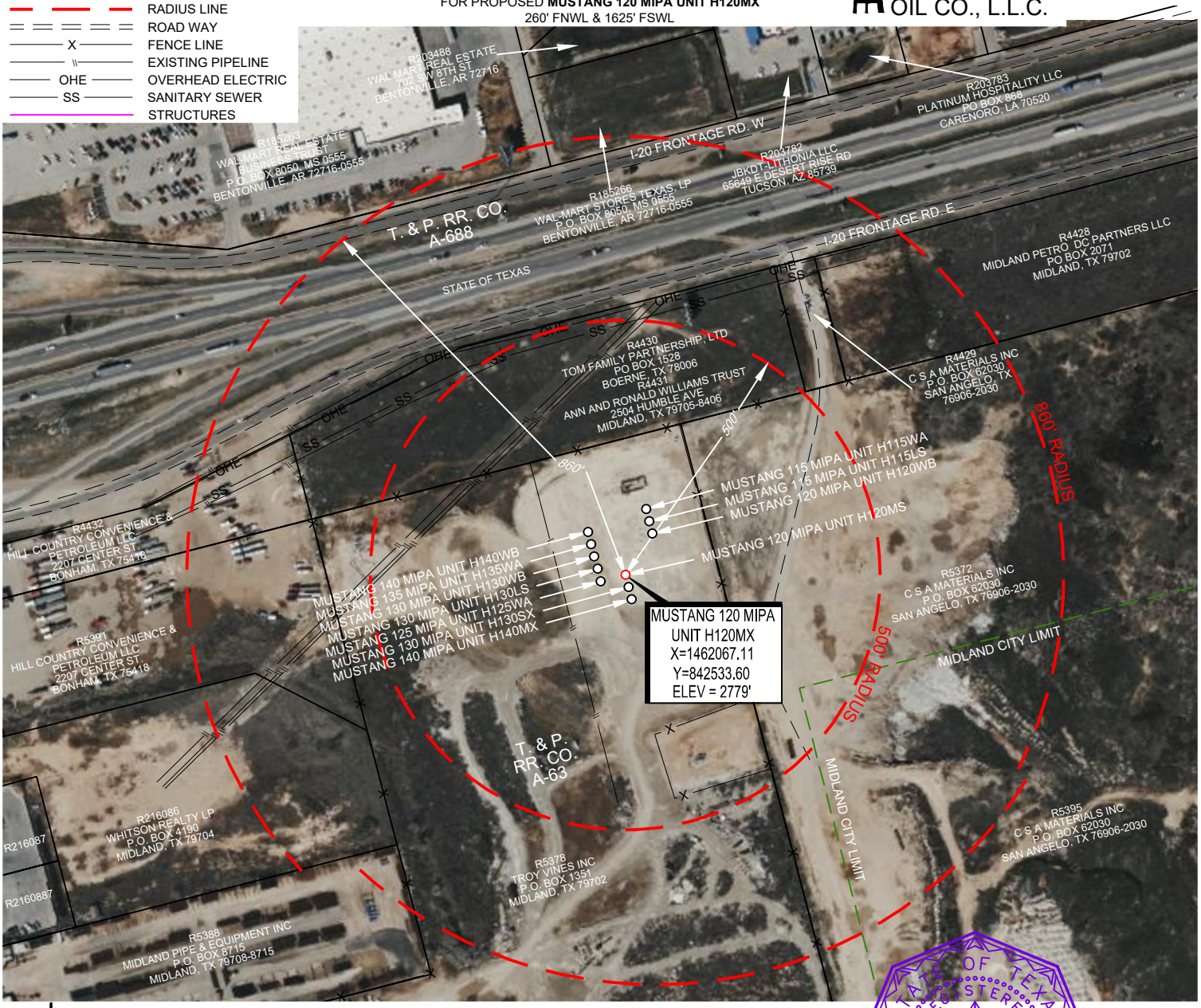
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LEGEND

- SURVEY/SECTION LINE
- RADIUS LINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- SS — SANITARY SEWER
- STRUCTURES

SECTION 11, BLOCK 39, T-2-S
T. & P. RR. CO. SURVEY, A-63
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS
SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **MUSTANG 120 MIPA UNIT H120MX**
260' FNWL & 1625' FSWL

# PERMIAN DEEP ROCK OIL CO., L.L.C.




STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL
LAND SURVEYOR

−N−

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

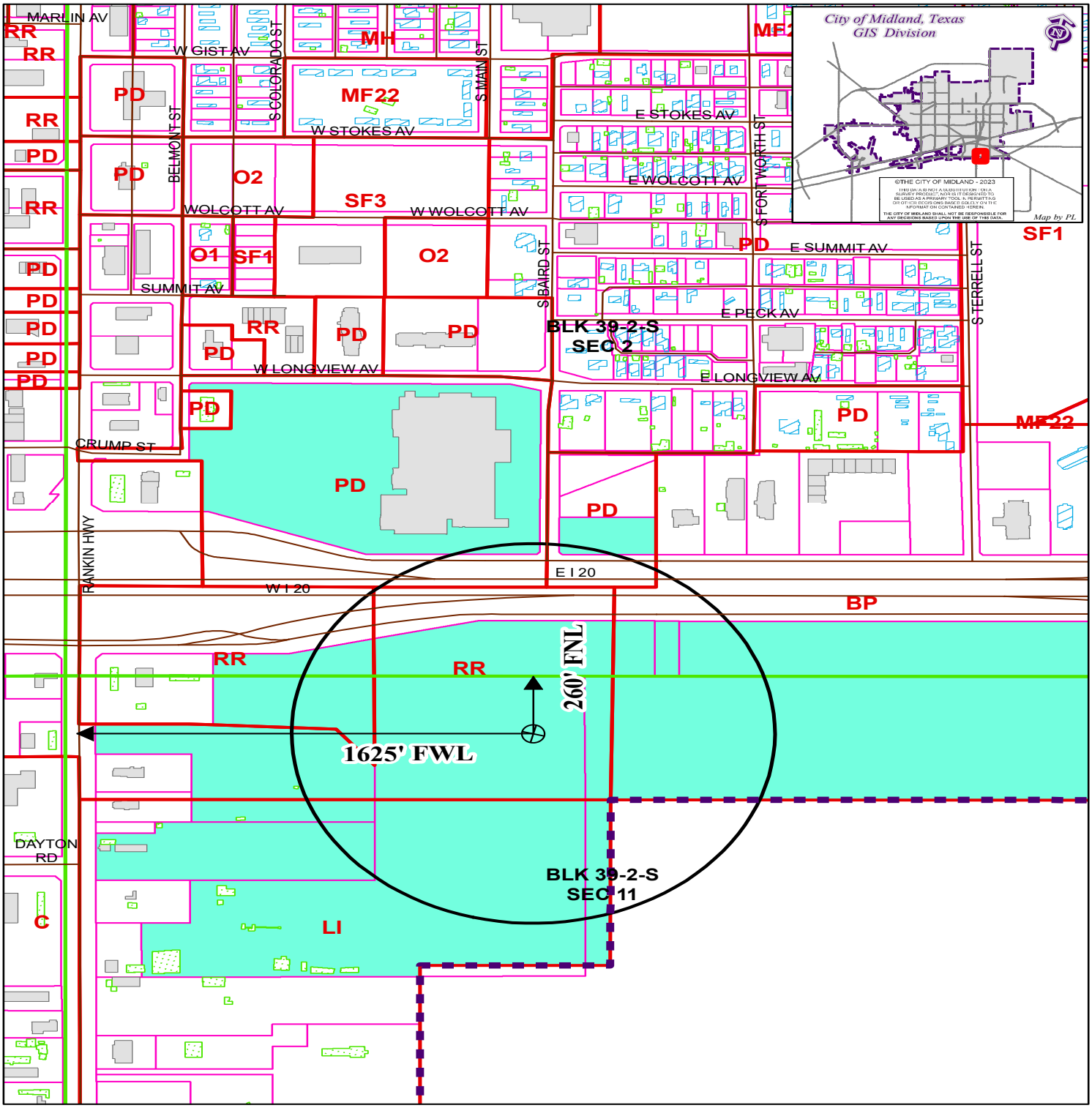

481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM


Jeffrey N. Lueders, R.P.L.S. No. 6512
JUNE 29, 2023

| MUSTANG 120 MIPA UNIT H120MX | REVISION: | |
|---|---|---|
| | INT | DATE |
| | DRH | 05/19/2022 |
| DATE: 05/17/2022 | MAL | 07/13/2023 |
| FILE: CD_MUSTANG_120MX_REV3 | | |
| DRAWN BY: DRH | | |
| SHEET : 1 OF 4 | | |

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. THIS PROPOSED LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED PERMIAN DEEP ROCK OIL CO., LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
4. OWNERSHIP INFORMATION SHOWN HEREON WAS TAKEN FROM THE CITY OF MIDLAND, TEXAS GIS SITE.
5. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.


PACKET
41.7
November 14, 2023




# LOCATION AND ZONING MAP

**Oil - 054415 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 260' FNL and 1,625' FWL, Section 11, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,625 feet east of Rankin Highway and 625 feet south of West I-20.

**Mustang 120 MIPA Unit #H120MX**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, 02 | OFFICE |
| RR | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| SF1, SF2, 1F3 | ONE-FAMILY DWELLING | CR1, CR2, CLRB | LOCAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 09/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes ✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

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See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

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See Exhibit "C"

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**General Description of Current Surface Use (within 860 feet of proposed surface location): Surface use: Undeveloped Rangeland, hotels, service company yards**
**Surface ownership: Hotels and service company yards:**

**See Exhibit "D"**

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***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Mustang 130 MIPA Unit #H130SX

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 285' FNL & 1625' FWL, Section 11
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

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***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

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***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

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***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas )

County of Midland )

Kyle Hammond , personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

Estella Pena
Notary Public, State of Texas

[S E A L]

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

SCALE: 1" = 300'

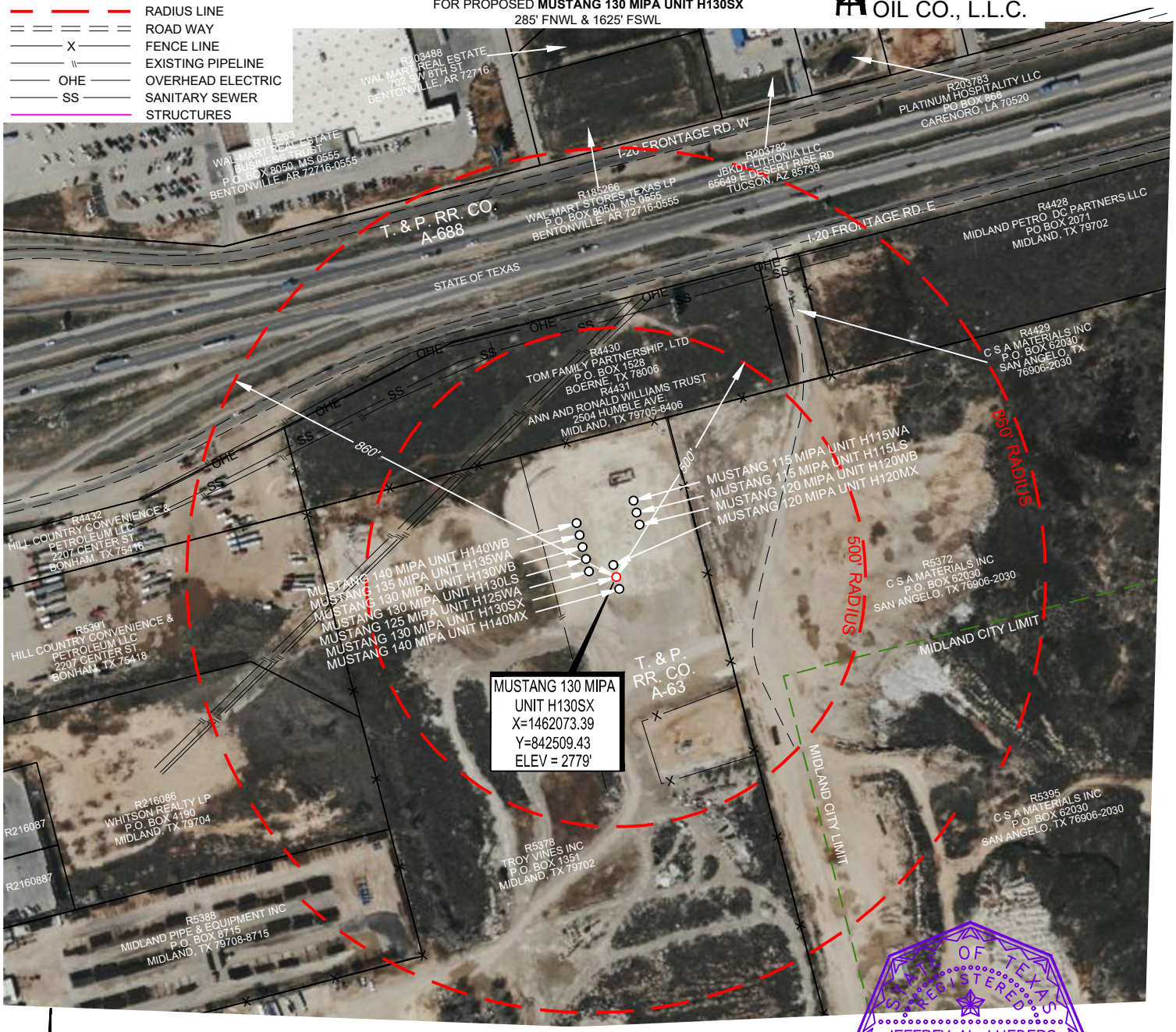
0' 150' 300'

LEGEND

- SURVEY/SECTION LINE
- RADIUS LINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- SANITARY SEWER
- STRUCTURES

SECTION 11, BLOCK 39, T-2-S
T. & P. RR. CO. SURVEY, A-63
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS
SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **MUSTANG 130 MIPA UNIT H130SX**
285' FNWL & 1625' FSWL

# PERMIAN DEEP ROCK OIL CO., L.L.C.




STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL
LAND SURVEYOR

N

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY


481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

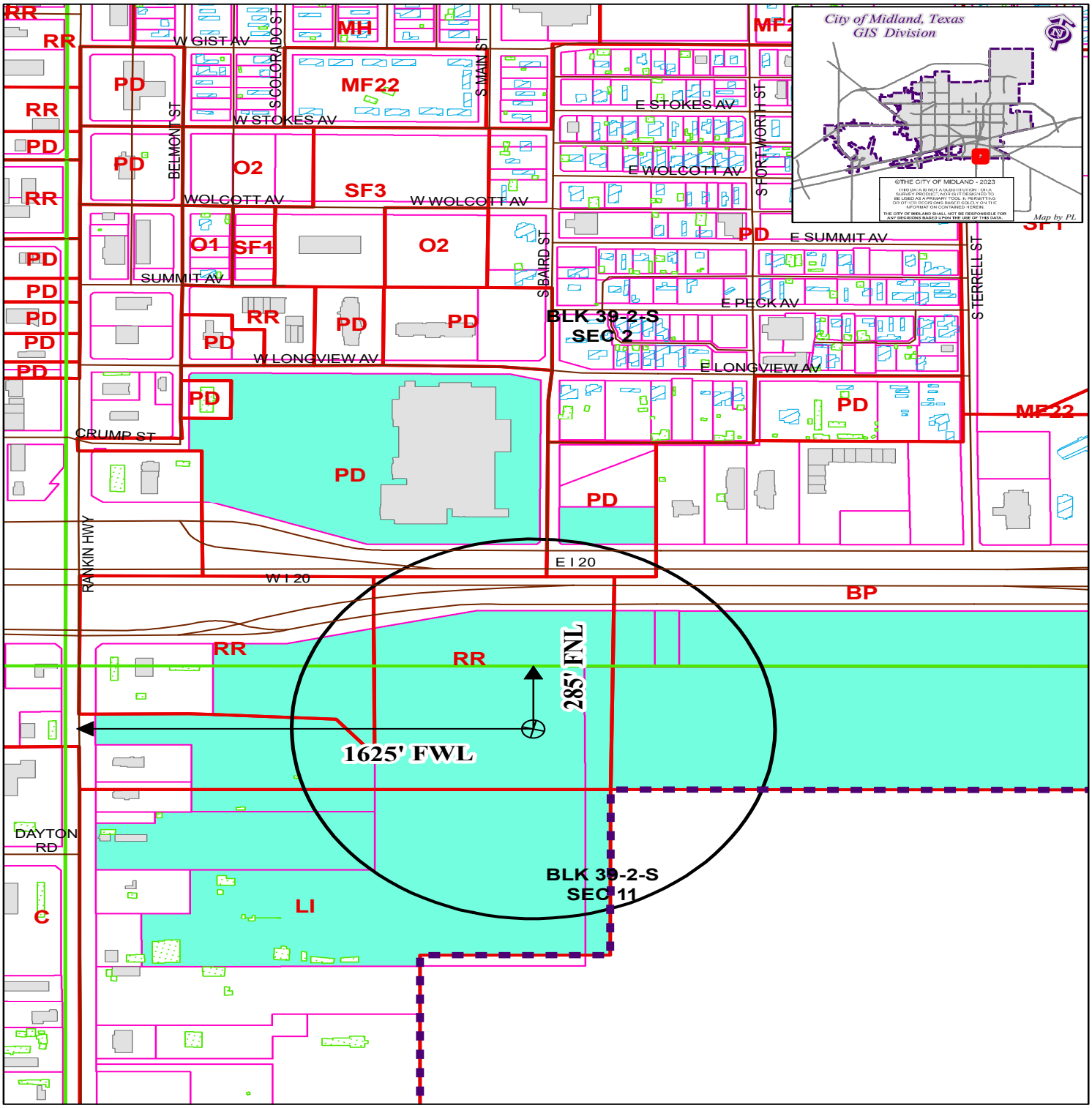

Jeffrey N. Lueders, R.P.L.S. No. 6512
JUNE 29, 2023

| MUSTANG 130 MIPA UNIT H130SX | REVISION: | |
|---|---|---|
| | INT | DATE |
| | DRH | 05/19/2022 |
| DATE: 05/17/2022 | MAL | 07/17/2023 |
| FILE: CD_MUSTANG_130SX_REV3 | DRH | 08/22/2023 |
| DRAWN BY: DRH | | |
| SHEET : 1 OF 4 | | |

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
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3. THIS PROPOSED LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED PERMIAN DEEP ROCK OIL CO., LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
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5. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.



S:\SURVEY\ARRINGTON\MUSTANG_UNIT\FINAL_PRODUCTS\CITY_PERMITS\NAD27\CD_MUSTANG_130SX_REV3.DWG 8/23/2023 11:47:57 AM dharris




# LOCATION AND ZONING MAP

**Oil - 054416 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 285' FNL and 1,625' FWL, Section 11, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,625 feet east of Rankin Highway and 650 feet south of West I-20.

**Mustang 130 MIPA Unit #H130SX**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, O2 | OFFICE |
| RE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| 1F1, 1F2, 1F3 | ONE-FAMILY DWELLING | CR1, CR2, CR3 | COMMUNITY RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

MIDLAND Planning Division

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 09/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes ✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location): Surface use: Undeveloped Rangeland, hotels, service company yards**
**Surface ownership: Hotels and service company yards:**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Mustang 140 MIPA Unit #H140MX

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 310' FNL & 1625' FWL, Section 11
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations).* [See § J(16) and (20)].**

***ATTACHED AS EXHIBIT J* is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: No city roads will be used**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas )

County of Midland )

Kyle Hammond , personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

Estella Pena
Notary Public, State of Texas

[S E A L]

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

SCALE: 1" = 300'

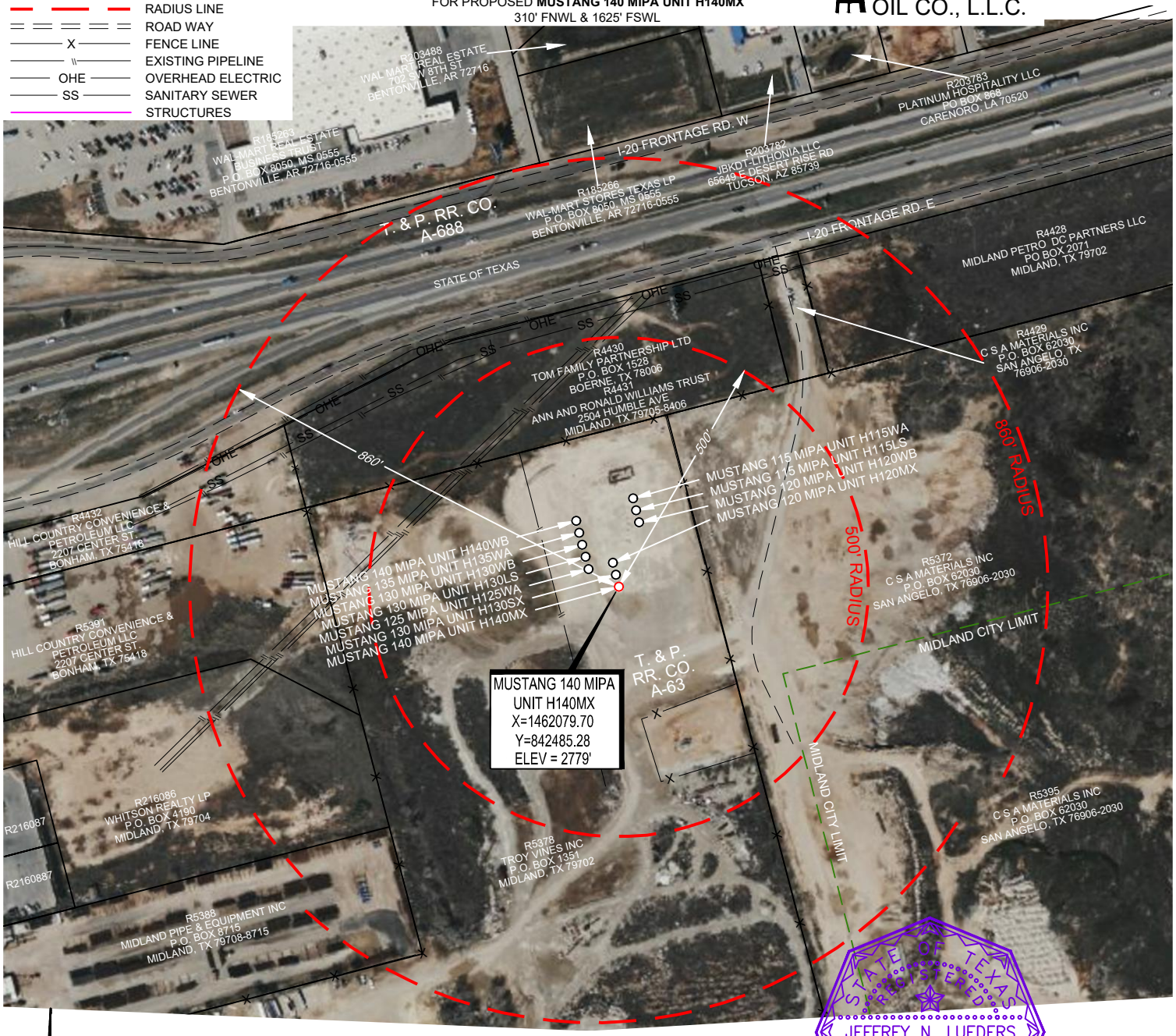
0' 150' 300'

LEGEND

- SURVEY/SECTION LINE
- RADIUS LINE
- ROAD WAY
- X FENCE LINE
- EXISTING PIPELINE
- OHE OVERHEAD ELECTRIC
- SS SANITARY SEWER
- STRUCTURES

SECTION 11, BLOCK 39, T-2-S
T. & P. RR. CO. SURVEY, A-63
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS
SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **MUSTANG 140 MIPA UNIT H140MX**
310' FNWL & 1625' FSWL

# PERMIAN DEEP ROCK OIL CO., L.L.C.




STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL
LAND SURVEYOR

Jeffrey N. Lueders, R.P.L.S. No. 6512
JUNE 29, 2023

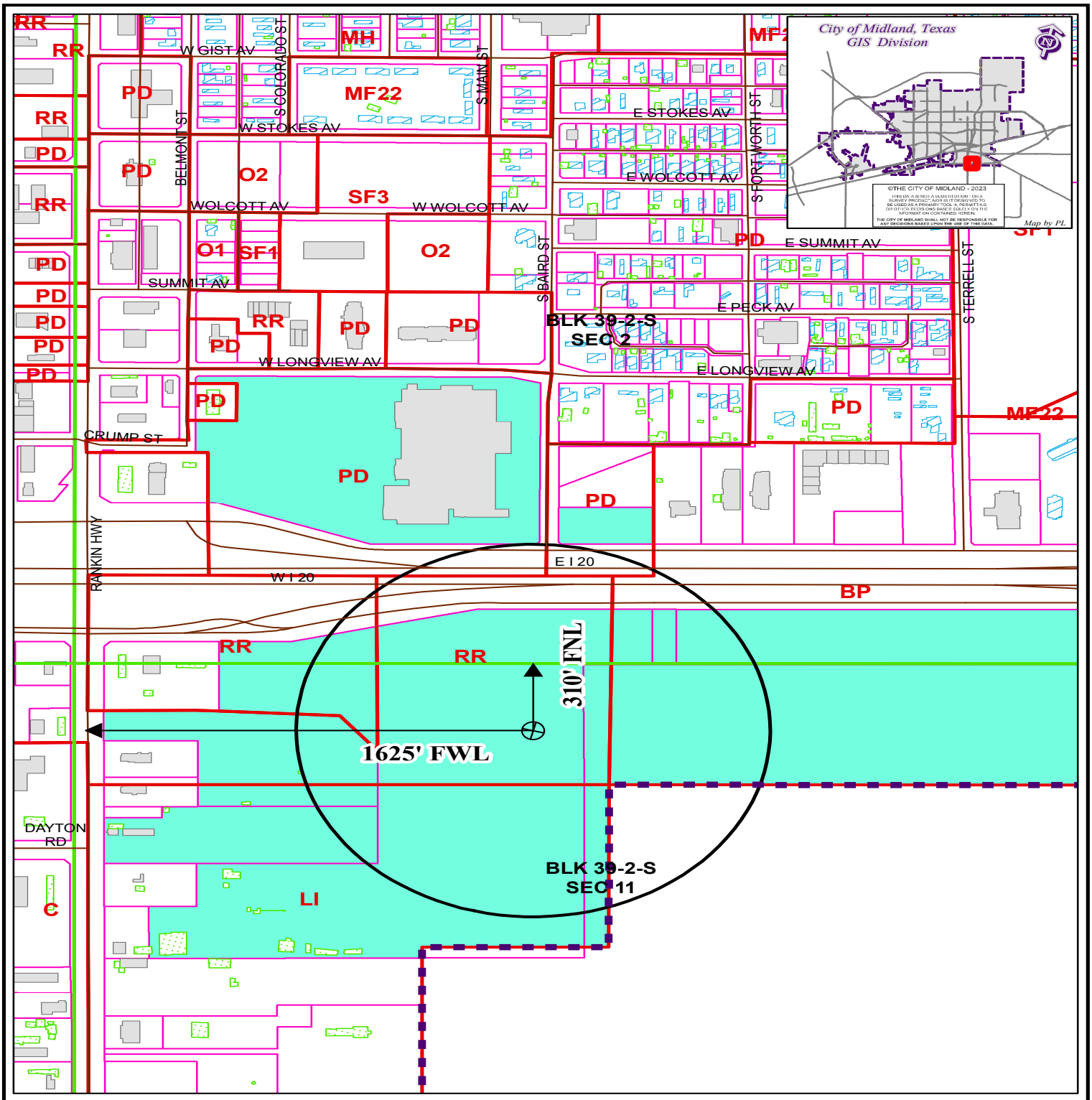
N

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

| MUSTANG 140 MIPA UNIT H140MX | REVISION: | |
|---|---|---|
| | INT | DATE |
| | DRH | 05/19/2022 |
| DATE: 05/17/2022 | MAL | 07/17/2023 |
| FILE: CD_MUSTANG_140MX_REV3 | DRH | 08/22/2023 |
| DRAWN BY: DRH | | |
| SHEET : 1 OF 4 | | |

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. THIS PROPOSED LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED PERMIAN DEEP ROCK OIL CO., LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
4. OWNERSHIP INFORMATION SHOWN HEREON WAS TAKEN FROM THE CITY OF MIDLAND, TEXAS GIS SITE.
5. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.

PACKET
41.19
November 14, 2023




# LOCATION AND ZONING MAP

**Oil - 054417 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 310' FNL and 1,625' FWL, Section 11, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,625 feet east of Rankin Highway and 675 feet south of West I-20.

**Mustang 140 MIPA Unit #H140MX**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, 02 | OFFICE |
| RE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| 1F1, 1F2, 1F3 | ONE-FAMILY DWELLING | C1R, C2R, C3R | COMMERCIAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# EXHIBIT "G"

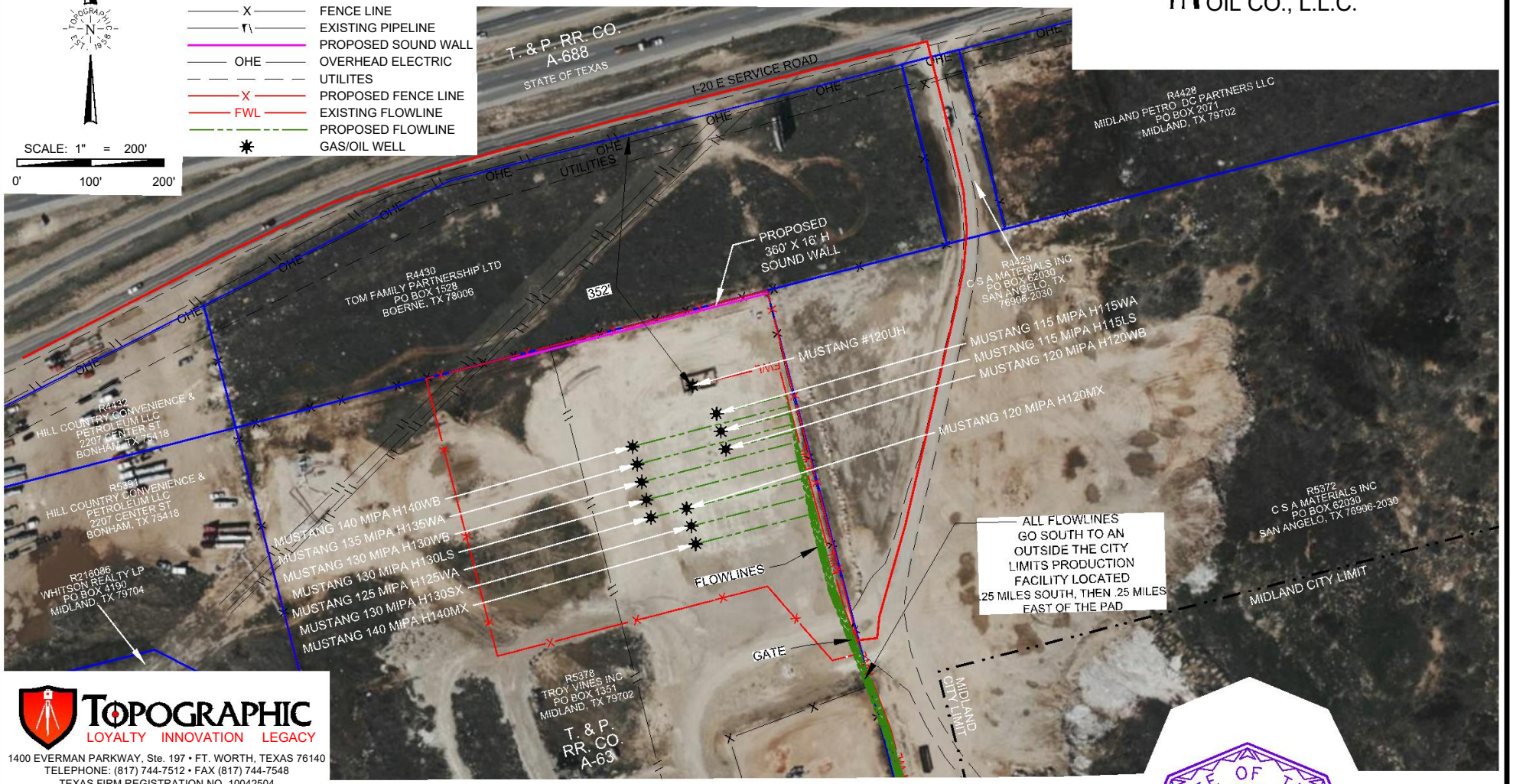
SECTION 11, BLOCK 39, T2S, T. & P. R. R. CO. SURVEY, A-63
MIDLAND COUNTY, TEXAS

PERMIAN DEEP ROCK OIL CO., L.L.C.

LEGEND

- CITY LIMIT LINE
- SURVEY LINE
- TRACT BORDER
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- PROPOSED SOUND WALL
- OVERHEAD ELECTRIC
- UTILITES
- PROPOSED FENCE LINE
- EXISTING FLOWLINE
- PROPOSED FLOWLINE
- GAS/OIL WELL

SCALE: 1" = 200'
0' 100' 200'





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1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM


| MUSTANG EAST PAD CITY PERMIT | REVISION: | |
|---|---|---|
| | DRH | 7/13/2021 |
| | DRH | 7/14/2021 |
| | DRH | 8/12/2021 |
| DATE: 01/08/2018 | DRH | 4/11/2022 |
| FILE: SK_MUSTANG_H120UH_CL_PERMIT_REV10 | DRH | 5/2/2022 |
| DRAWN BY: AMD | DRH | 06/26/2023 |
| SHEET : 3 OF 7 | DRH | 07/20/2023 |

NOTES:
1. ORIGINAL DOCUMENT SIZE: 11" X 8.5"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS COORDINATE SYSTEM OF 1927, CENTRAL ZONE, U.S. SURVEY FEET.
3. CERTIFICATION IS MADE ONLY FOR PROPOSED UTILITIES AND SITES, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY PERMIAN DEEP ROCK OIL CO., L.L.C. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. ALL PROPOSED INFRASTRUCTURE SHOWN HEREON IS SOLELY FOR THE PURPOSE OF APPLYING FOR A PERMIT WITH THE CITY OF MIDLAND, TEXAS. THIS IS EXHIBIT IS NOT TO BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH THE T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THESE ARE FOR PLANNING PURPOSES ONLY.
5. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL LAND SURVEYOR

JEFFREY N. LUEDERS, R.P.L.S. NO. 6512
November 14, 2023
SURVEYED ON THE GROUND: JUNE 29, 2023

PACKET 41.21

S:\SURVEY\ARRINGTON\MUSTANG_UNIT\FINAL_PRODUCTS\SKETCH\SK_MUSTANG_H120UH_CL_PERMIT_REV10.DWG 8/23/2023 1:02:33 PM dharris

# City Council Meeting

**Item Number:** 42

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Ron Jenkins, Oil and Gas Coordinator

**Subject:** **The proposed granting of oil and gas well permits to Permian Deep Rock Oil Co., LLC ("Operator") for the drilling of the following oil and gas wells: Mustang 150 MIPA Unit #H150SX and Mustang 160 MIPA Unit #H160MX; said wells being generally located between 1,101 feet and 1,131 feet west of Rankin Highway and 560 feet south of West I-20 (DISTRICT 2) (DEVELOPMENT SERVICES)**

---

**Purpose:**

The proposed granting of oil and gas well permits to Permian Deep Rock Oil Co., LLC ("Operator") for the drilling of the following oil and gas wells: Mustang 150 MIPA Unit #H150SX and Mustang 160 MIPA Unit #H160MX; said wells being generally located between 1,101 feet and 1,131 feet west of Rankin Highway and 560 feet south of West I-20. Council may consider these permits following a 30-day public comment period and at a regularly scheduled meeting. No notices of objection received.

**Recommended City Council Action:**

Directional / Informational

**Fiscal Impact:**

There is no cost to the City to process this application.

**Discussion:**

The Oil and Gas Advisory Committee has reviewed the well site in detail and recommends approval. A 16 ft. sound wall will be used during drilling and completion operations being located on the south side of location. Tank battery is located inside the City limits. There have been permitted applications at this well pad requesting the same variances. The operator has a surface agreement with the surface owner. Receiving support of the Oil & Gas Advisory

Committee, Permian Deep Rock Oil is requesting the following variances:

(1) Permian Deep Rock Oil Company requests variance to residence or commercial structure:
Mustang 150 MIPA Unit #H150SX of 346 feet.
Mustang 160 MIPA Unit #H160MX of 363 feet
(2) Permian Deep Rock Oil Company requests to allow for twenty-four-hour fracing operations.
(3) Permian Deep Rock Oil Company requests variance for fencing of the drill pad instead of each individual well
(4) Permian Deep Rock Oil Company requests a variance to the requirement of landscaping and irrigation due to no city water is available.
(5) Permian Deep Rock Oil Company requests variance to the Road Repair Agreement due to no city streets will be used.

Attachments: Applications; Location maps; Exhibit - Drill site map, Exhibit – Flow Line Location.

Morris William Jr.

City Manager's Office

MIDLAND
Planning Division

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 09/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes ✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

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**3.**

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See Exhibit "C"

## III. Surface Ownership & Use

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**See Exhibit "D"**

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***Current Tax Roll from Midland Central Appraisal District),*** **which lists the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7).]**

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***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Mustang 150 MIPA Unit #H150SX

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 203' FNL & 1101' FEL, Section 11
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

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***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

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***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

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**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

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***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas )

County of Midland )

Kyle Hammond , personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

Estella Pena
Notary Public, State of Texas

[S E A L]

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

SCALE: 1" = 300'

0' 150' 300'

## LEGEND

- SURVEY/SECTION LINE
- RADIUS LINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- SS — SANITARY SEWER
- STRUCTURES

# T. & P. RR. CO. SURVEY, A-670
# CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **MUSTANG 150 MIPA UNIT H150SX**
**2**03' FNWL & 1101' FNEL

PERMIAN DEEP ROCK OIL CO., L.L.C.




N

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481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
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STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL
LAND SURVEYOR

Jeffery N. Lueders, R.P.L.S. No. 6512
JUNE 29, 2023

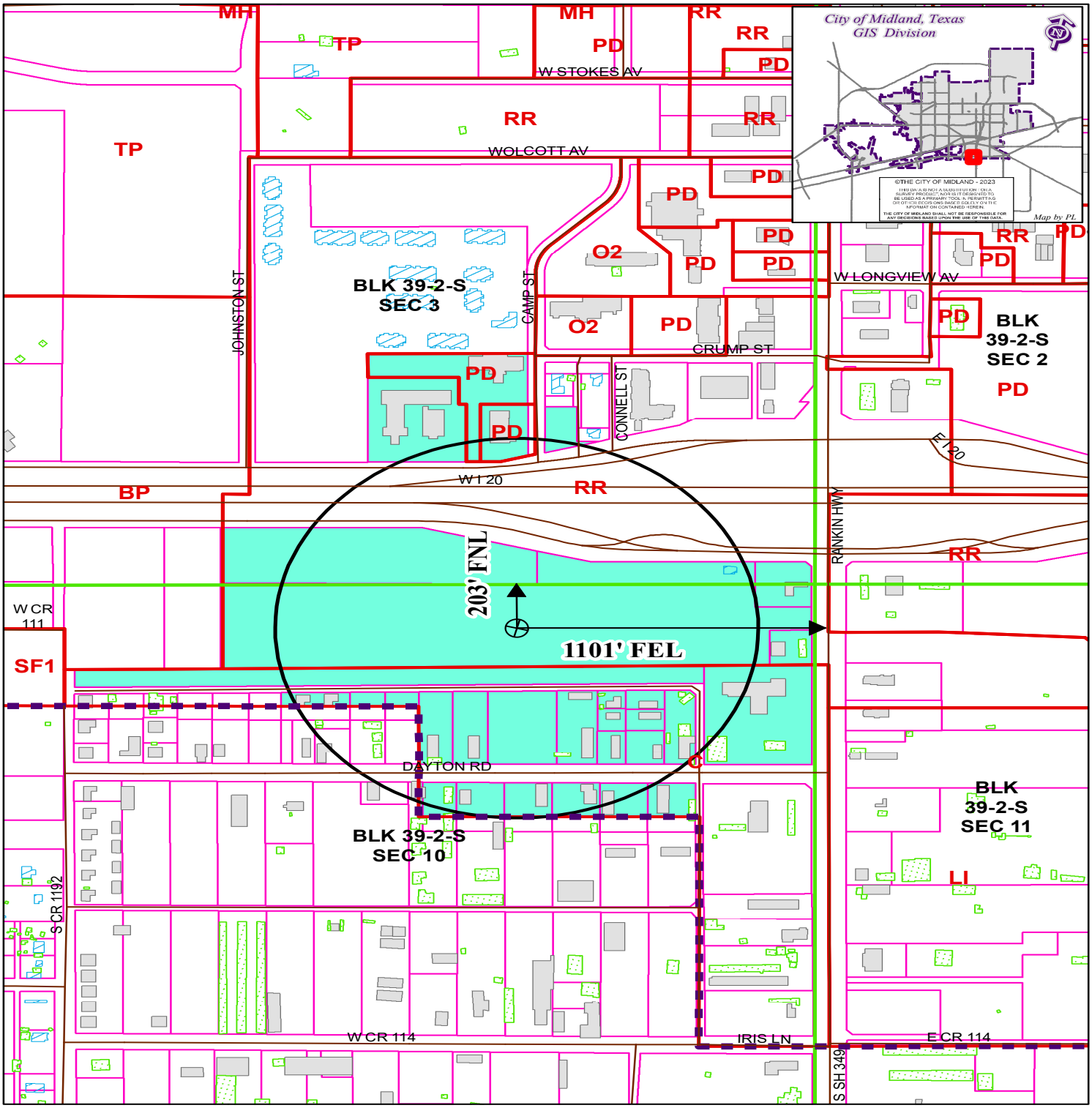
| MUSTANG 150 MIPA UNIT H150SX | REVISION: | |
|---|---|---|
| | D.R.H. | 05/17/2022 |
| | D.R.H. | 05/19/2022 |
| DATE: 05/12/2021 | D.R.H. | 05/25/2022 |
| FILE: CD_MUSTANG_A_150SX_REV8 | D.R.H. | 05/26/2022 |
| DRAWN BY: RACKET | MAL | 07/13/2023 |
| SHEET : 1 OF 4 | DRH | 08/22/2023 |

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS COORDINATE
3. SYSTEM OF 1927, U.S. SURVEY FEET.
4. THIS PROPOSED LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED PERMIAN DEEP ROCK OIL CO., LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
5. OWNERSHIP INFORMATION SHOWN HEREON WAS TAKEN FROM THE CITY OF MIDLAND, TEXAS GIS SITE.
6. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.

42.7

November 14, 2023

S:\SURVEY\ARRINGTON\MUSTANG_UNIT\FINAL_PRODUCTS\CITY_PERMITS\NAD27\CD_MUSTANG_A_150SX_REV8.DWG 8/23/2023 11:45:28 AM dharris




# LOCATION AND ZONING MAP

**Oil - 054418 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 203' FNL and 1,101' FEL, Section 11, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,101 feet west of Rankin Highway and 560 feet south of West I-20.

**Mustang 150 MIPA Unit #H150SX**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, O2 | OFFICE |
| RR | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| R1, R2, 1F3 | ONE-FAMILY DWELLING | CR1, CR2, CRR | COMMERCIAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

## I. General Information

| Date | Operator Name (must match W-1) | Operator Address |
|---|---|---|
| 09/01/2023 | Permian Deep Rock Oil Co., LLC | P.O. Box 11405<br>Midland, TX 79702 |

| Representative Name | Representative Address (within Midland City Limits) | Rep. Tele. |
|---|---|---|
| Kyle M. Hammond | 500 W. Wall St. Ste 300<br>Midland, TX 79701 | 432-682-6685<br>Rep. Fax 432-684-4519 |
| **Fee: $4,000.00 Rec'd Yes ✓ No___** | **NOTE: All attachments need to bound and put in a binder before submitting.** | **Pages 1-4** |

**Permit Compliance Contact (Choose 1):**

**Option A:**

**24/7 Answering Services - No. 1 (Tele.):** **No. 2 (Tele.):**

**Option B:**

**Company Compliance Representative (Name, Address, Local Telephone)** ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

**Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):**

See Exhibit "A"

**Other Permitted Wells in City** ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

## II. Mineral Ownership

**Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):**

**1.**

**2.**

**3.**

***ATTACHED AS EXHIBIT C*** **is** List of subdivisions

See Exhibit "C"

## III. Surface Ownership & Use

**General Description of Current Surface Use (within 860 feet of proposed surface location): Surface use: Undeveloped Rangeland, hotels, service company yards**
**Surface ownership: Hotels and service company yards:**

**See Exhibit "D"**

***ATTACHED AS EXHIBIT D*** **is** ,

***Current Tax Roll from Midland Central Appraisal District),*** **which lists**

**the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7).**

***ATTACHED AS EXHIBIT E* is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

***ATTACHED AS EXHIBIT F* is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

## IV. Well & Operations Information

**Proposed Well Name:** Mustang 160 MIPA Unit #H160MX

**Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:**

See Exhibit "G"

**Legal Description of Proposed Well Site:** SHL: 203' FNL & 1131' FEL, Section 11
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

***ATTACHED AS EXHIBIT G* is the Location Site Plan [See § J(9)].**

***ATTACHED AS EXHIBIT H* is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

***ATTACHED AS EXHIBIT I* is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations).* [See § J(16) and (20)].**

***ATTACHED AS EXHIBIT J* is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

***ATTACHED AS EXHIBIT K (if applicable)* is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

***ATTACHED AS EXHIBIT L* is the Fencing and Irrigation Plan. [See § J(30)].**

***ATTACHED AS EXHIBIT M*: No city roads will be used**

***ATTACHED AS EXHIBIT N* is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

**Description of Public Utilities required during (1) drilling and (2) operations:**

**(1) Drilling: None**

**(2) Operations: Oncor**

**Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.**

**Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:**

See Exhibit "N"

**Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)**

**See Exhibit "O"**

## V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

**ATTACHED AS EXHIBIT V: Applicants variances**

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas )

County of Midland )

Kyle Hammond , personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

Estella Pena
Notary Public, State of Texas

[S E A L]

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

SCALE: 1" = 300'

0' 150' 300'

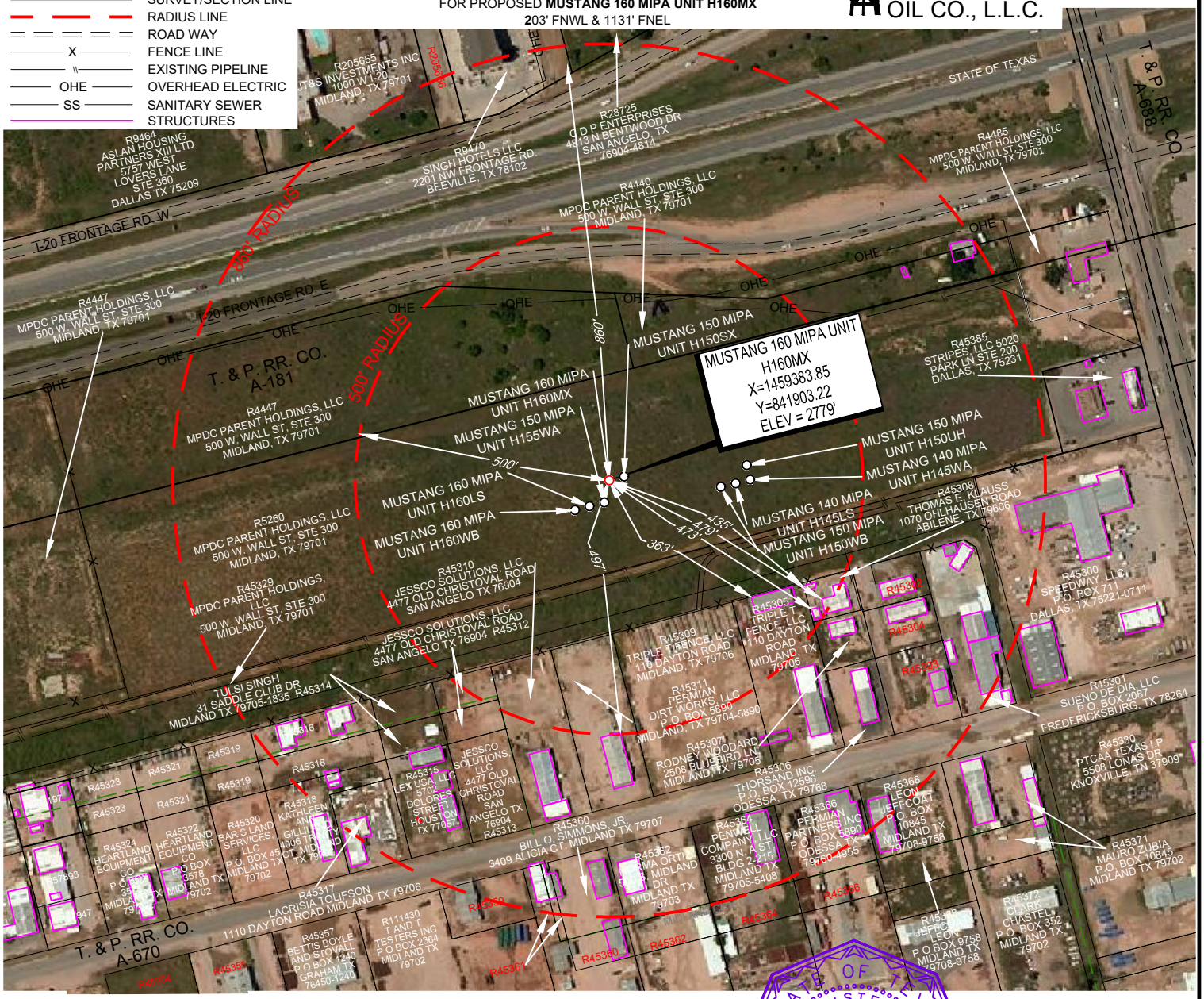
## LEGEND

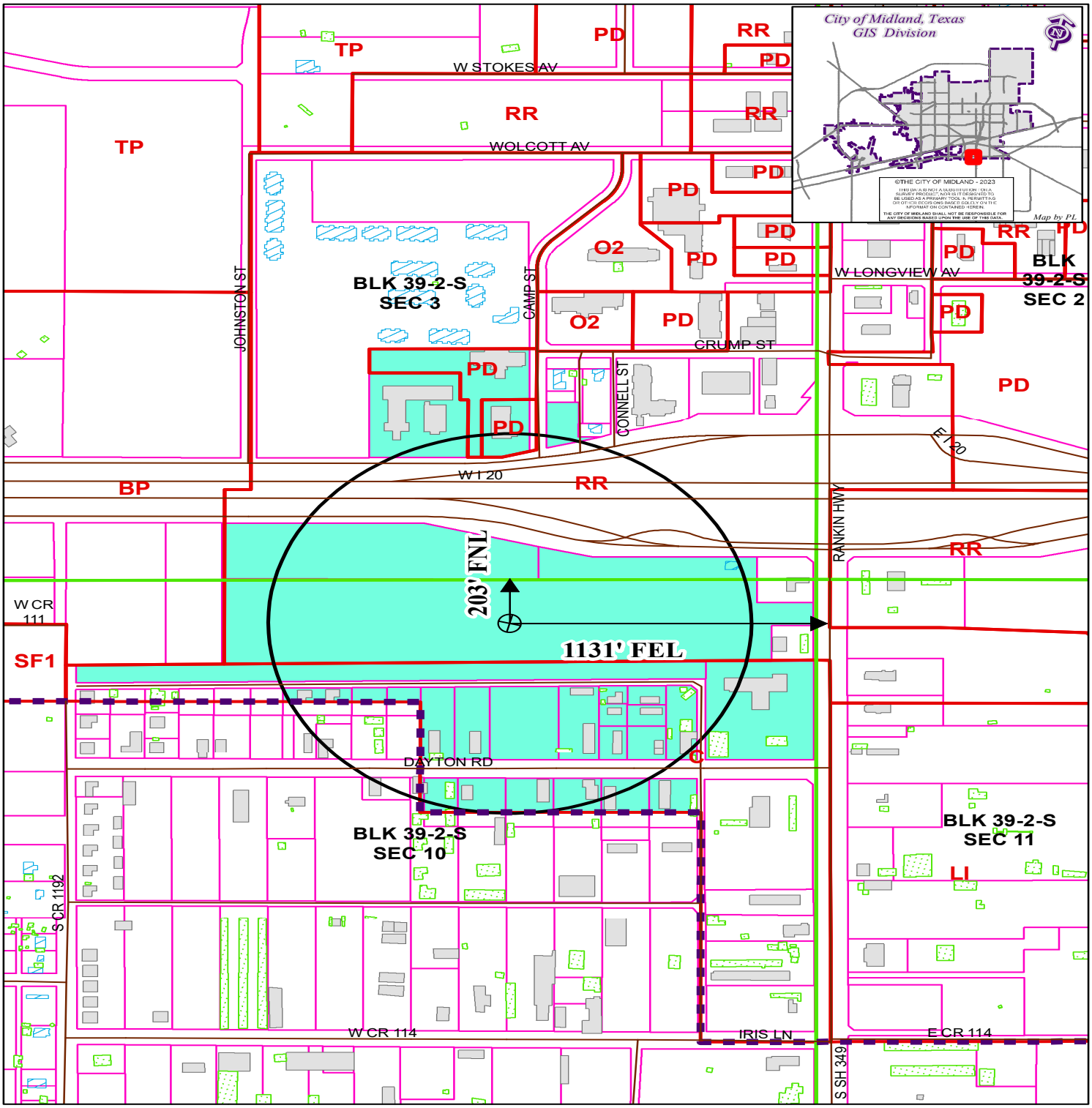
- SURVEY/SECTION LINE
- RADIUS LINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- SS — SANITARY SEWER
- STRUCTURES

T. & P. RR. CO. SURVEY, A-670
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **MUSTANG 160 MIPA UNIT H160MX**
203' FNWL & 1131' FNEL

# PERMIAN DEEP ROCK OIL CO., L.L.C.


MUSTANG 160 MIPA UNIT H160MX
X=1459383.85
Y=841903.22
ELEV = 2779'
MUSTANG 150 MIPA UNIT H150SX
MUSTANG 160 MIPA UNIT H155WA
MUSTANG 160 MIPA UNIT H160LS
MUSTANG 160 MIPA UNIT H160WB
MUSTANG 150 MIPA UNIT H150UH
MUSTANG 140 MIPA UNIT H145WA
MUSTANG 140 MIPA UNIT H145LS
MUSTANG 150 MIPA UNIT H150WB
860' RADIUS
500' RADIUS
I-20 FRONTAGE RD. W
I-20 FRONTAGE RD. E
T. & P. RR. CO. A-181
T. & P. RR. CO. A-670
T. & P. RR. CO. A-688
STATE OF TEXAS
OHE
R205655 UT&S INVESTMENTS INC 1000 W I-20 MIDLAND, TX 79701
R9464 ASLAN HOUSING PARTNERS XIII LTD 5757 WEST LOVERS LANE STE 360 DALLAS TX 75209
R9470 SINGH HOTELS LLC 2201 NW FRONTAGE RD. BEEVILLE, TX 78102
R28725 G D P ENTERPRISES 4813 N BENTWOOD DR SAN ANGELO, TX 76904-4814
R4440 MPDC PARENT HOLDINGS, LLC 500 W. WALL ST, STE 300 MIDLAND, TX 79701
R4485 MPDC PARENT HOLDINGS, LLC 500 W. WALL ST, STE 300 MIDLAND, TX 79701
R4447 MPDC PARENT HOLDINGS, LLC 500 W. WALL ST, STE 300 MIDLAND, TX 79701
R5260 MPDC PARENT HOLDINGS, LLC 500 W. WALL ST, STE 300 MIDLAND, TX 79701
R45329 MPDC PARENT HOLDINGS, LLC 500 W. WALL ST, STE 300 MIDLAND, TX 79701
R45385 STRIPES, LLC 5020 PARK LN STE 200 DALLAS, TX 75231
R45308 THOMAS E. KLAUSS 1070 OHLHAUSEN ROAD ABILENE, TX 79606
R45310 JESSCO SOLUTIONS, LLC 4477 OLD CHRISTOVAL ROAD SAN ANGELO TX 76904
R45312 JESSCO SOLUTIONS, LLC 4477 OLD CHRISTOVAL ROAD SAN ANGELO TX 76904
R45314 TULSI SINGH 31 SADDLE CLUB DR MIDLAND TX 79705-1835
R45309 TRIPLE T FENCE, LLC 110 DAYTON ROAD MIDLAND, TX 79706
R45305 TRIPLE T FENCE, LLC 110 DAYTON ROAD MIDLAND, TX 79706
R45311 PERMIAN DIRT WORKS, LLC P.O. BOX 5890 MIDLAND, TX 79704-5890
R45307 RODNEY WOODARD 2508 BLUEBIRD LN MIDLAND, TX 79703
R45306 THORSAND, INC. P.O. BOX 12596 ODESSA, TX 79768
R45300 SPEEDWAY, LLC P.O. BOX 711 DALLAS, TX 75221-0711
R45301 SUENO DE DIA, LLC P.O. BOX 2087 FREDERICKSBURG, TX 78264
R45330 PTCAA TEXAS LP 5506 LONAS DR KNOXVILLE, TN 37909
R45371 MAURO ZUBIA P.O. BOX 10845 MIDLAND TX 79702
R45372 CLARK CHASTEL P.O. BOX 352 MIDLAND TX 79702
R45368 LEON JEFFCOAT P.O. BOX 10845 MIDLAND TX 79708-9758
R45366 PERMIAN PARTNERS INC P.O. BOX 5890 ODESSA TX 79760-4955
R45364 PENWELL COMPANY, LLC 3300 N. A ST BLDG 2-215 MIDLAND, TX 79705-5408
R45362 EMMA ORTIZ 3 MIDLAND DR MIDLAND TX 79703
R45360 BILL O. SIMMONS, JR 3409 ALICIA CT. MIDLAND TX 79707
R45317 LACRISIA TOLIFSON 1110 DAYTON ROAD MIDLAND TX 79706
R45357 BETTIS BOYLE AND STOVALL P O BOX 1240 GRAHAM TX 76450-1240
R111430 T AND T TESTERS INC P O BOX 2364 MIDLAND TX 79702
R45320 BAR S LAND SERVICES, LLC P.O. BOX 45 MIDLAND TX 79702
R45322 HEARTLAND EQUIPMENT CO P.O. BOX 3678 MIDLAND TX 79702
R45324 HEARTLAND EQUIPMENT CO P.O. BOX 3678 MIDLAND TX 79702
R45318 KATHLEEN GILLILAND 4006 TRAVIS MIDLAND TX 79707
R45315 LEX USA, LLC 5702 DOLORES STREET HOUSTON TX 77057
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# LOCATION AND ZONING MAP

**Oil - 054419 - 2023** **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 203' FNL and 1,131' FEL, Section 11, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,131 feet west of Rankin Highway and 560 feet south of West I-20.

**Mustang 160 MIPA Unit #H160MX**

## LEGEND

| | | |
|---|---|---|
| CITY PARCELS | PUBLIC BLDGS | CITY LIMITS |
| COUNTY PARCELS | PRIVATE BLDGS | 860 FT. BUFFER |
| ZONING | ACCESSORY BLDGS | SURVEY SEC. |

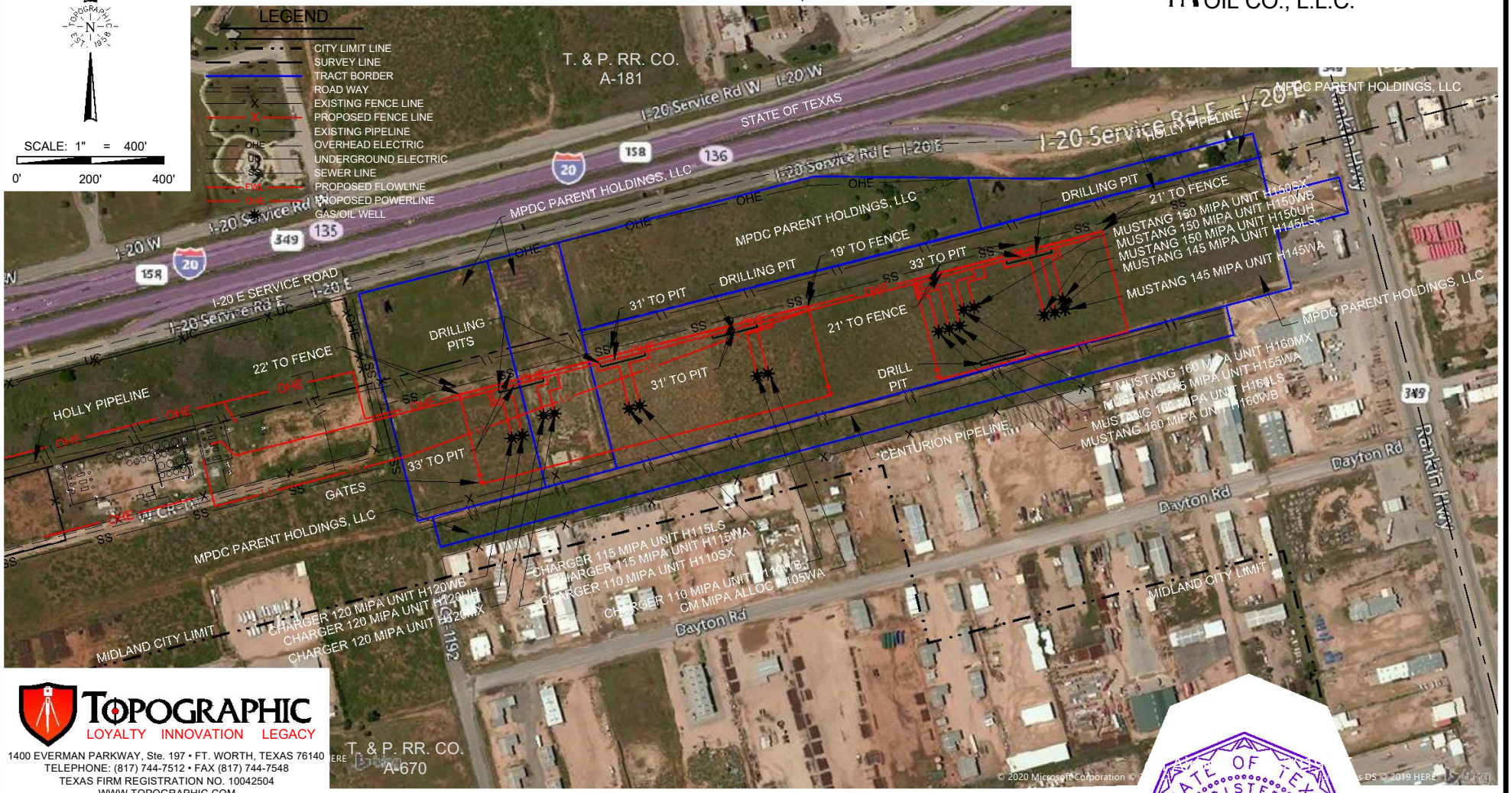
**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, 02 | OFFICE |
| CE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| SF1, SF2, 1F3 | ONE-FAMILY DWELLING | CR1, CR2, CR3 | LOCAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

# EXHIBIT "G"

SECTION 3, BLOCK 39, T2S, T. & P. RR. CO. SURVEY, A-181 &
SECTION 10, BLOCK 39, T2S, H. MCCLINTIC SURVEY, A-670
MIDLAND COUNTY, TEXAS

PERMIAN DEEP ROCK OIL CO., L.L.C.





TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM


| CHARGER UNIT CITY PERMIT | REVISION: | |
|---|---|---|
| | DRH | 06/16/21 |
| | DRH | 07/21/21 |
| | DRH | 08/09/21 |
| DATE: 03/28/2018 | DRH | 10/13/21 |
| FILE: SK_MUSTANG_UNIT_A_CHARGER_UNIT_A_PERMIT_REV21 | DRH | 12/10/21 |
| DRAWN BY: GJU | DRH | 06/27/2023 |
| SHEET : 3 OF 12 | DRH | 07/20/2023 |

NOTES:
1. ORIGINAL DOCUMENT SIZE: 11" X 8.5"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. CERTIFICATION IS MADE ONLY FOR PROPOSED UTILITIES AND SITES, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY PERMIAN DEEP ROCK OIL CO., L.L.C. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. ALL PROPOSED INFRASTRUCTURE SHOWN HEREON IS SOLELY FOR THE PURPOSE OF APPLYING FOR A PERMIT WITH THE CITY OF MIDLAND, TEXAS. THIS IS EXHIBIT IS NOT TO BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH THE T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THESE ARE FOR PLANNING PURPOSES ONLY.
5. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.
6. D.R.M.C.T. = DEED RECORDS MIDLAND COUNTY, TEXAS
7. C.C.O.R.M.C.T. = C. C. OFFICIAL RECORDS MIDLAND COUNTY, TEXAS

STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL
LAND SURVEYOR

JEFFREY N. LUEDERS, R.P.L.S. NO. 6512
SURVEYED ON THE GROUND: JUNE 29, 2023

PACKET

November 14, 2023

S:\SURVEY\ARRINGTON\MUSTANG_UNIT\FINAL_PRODUCTS\SKETCH\SK_MUSTANG_UNIT_A_CHARGER_UNIT_A_PERMIT_REV21.DWG 8/23/2023 1:04:16 PM dharris

# City Council Meeting

**Item Number:** 43

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Landon Ochoa, Senior Planner

**Subject:** **AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 52, BLOCK 31, LONE STAR TRAILS ADDITION, SECTION 5, CORRECTION PLAT, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF LONE STAR LANE AND BURNETT LANE), BY PERMITTING A REDUCED MINIMUM REAR YARD SETBACK; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION (DISTRICT 1) (DEVELOPMENT SERVICES)**

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**Purpose:**

The applicant, Lilly Ochoa, is requesting a Special Exception from the City of Midland Zoning Ordinance, *Section 4.09.A.1 - Residential District Dimensional Regulations Chart,* to allow for a reduced rear yard setback for an accessory structure.

**Recommended City Council Action:**

Deny

**Fiscal Impact:**

No City funds are required to process this request.

**Discussion:**

*Section 4.09.A.1 – Residential District Dimensional Regulations Chart* shows that the rear setback for an accessory structure on a corner lot between 7,500 to 21,999 square feet is 15

feet. The property is approximately 12,066 square feet. Per the attached site plan, the structure is currently 7.4 feet from the rear property line.

This request has been circulated to all pertinent City departments for review. Below are the departments' comments.

**Fire: (Approved)**

No comments at this time.

**Building: (Approved)**

No issues. All future structures must adhere to the .2018 International Building Codes, the 2015 International Energy Code, the 2020 NEC, the 2015 International Fire Codes, local city ordinances, zoning requirements, established setbacks, oil and gas considerations, and floodplain requirements if necessary. Code versions are subject to change depending on time of new code edition adoption in the City of Midland and date of permit application.

**Engineering: (Approved)**

No objections. [For the Applicant's information only.]

**Code Compliance: (Approved)**

No Oil and Gas issues.

**Transportation: (Approved)**

No objections. [For the Applicant's information only.]

**Planning (Denied):**

The accessory structure on the property was built without a permit. The home owner claims the contractor they hired did not apply for a permit without them knowing. A Stop-Work Order was issued for the structure and now they are applying for a Special Exception to resolve the issue regarding the rear yard setback of the structure. However, there is no hardship that would warrant the reduced rear yard setback.

Staff is recommending denial of this special exception, however, should it be approved, staff recommends that it be subject to conditions A and B.

**Condition:**

A. **That the minimum rear yard setback shall be 7.4 feet.**

B. **That the locations of all structures on the Property shall significantly conform to the site plan, which is attached hereto as Exhibit "A" and incorporated**

**herein for all purposes.**

**Letters of Objection:**

Staff has one letter of objection as of November 3, 2023. The objection letter attached was sent out for the October 24, 2023 City Council meeting. However, the item was removed from that agenda due to new information about the property being discovered and adjustments to the legal description being made. Given the content of the letter, we have included it for this meeting.

**Attachments:**

Site Plan (Exhibit A)
Survey (Exhibit B)
Application
Maps
Ordinance No. 9223

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 52, BLOCK 31, LONE STAR TRAILS ADDITION, SECTION 5, CORRECTION PLAT, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF LONE STAR LANE AND BURNETT LANE), BY PERMITTING A REDUCED MINIMUM REAR YARD SETBACK; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION

WHEREAS, the City Council modified the authority of the Board of Adjustment in Title XI, Chapter 1, Section 7 ("Section 11-1-7") of the Midland City Code; and

WHEREAS, Section 11-1-7 provides for the consideration of requests for special exceptions to the Midland Zoning Ordinance; and

WHEREAS, the Council finds that satisfactory evidence has been presented that the use to be authorized by the granting of the special exception will not be detrimental to the health, safety, comfort and welfare of the occupants of the land area near the tract on which the use to be allowed by special exception will be located; and

WHEREAS, after a full and fair public hearing at which all parties in interest were offered an opportunity to be heard, all pursuant to law, the Council finds it to be in the public interest to grant a special exception to the Zoning Ordinance, pursuant to Section 11-1-7, for the purposes herein stated, subject to special conditions;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That a special exception is hereby granted for the property

described as Lot 52, Block 31, Lone Star Trails Addition, Section 5, CorrectionPlat, City and

SECTION TWO. Said special exception is subject to the following special conditions:

A. That the minimum rear yard setback shall be 7.4 feet

B. That the locations of all structures on the Property shall significantly conform to the site plan, which is attached hereto as Exhibit "A" and incorporated herein for all purposes.

SECTION THREE. The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as

that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

SECTION FIVE. The penalty for violation of this ordinance shall be in accordance

with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland,

Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

SECTION SEVEN. The City Secretary is hereby authorized and directed to publish

SECTION SIX. The City Secretary is hereby authorized and directed to file this

ordinance with the Office of the County Clerk for purposes of recordation.

County of Midland, Texas (the "Property"). Said special exception shall allow a reduced minimum rear yard setback.

Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on

first reading, the _____ day of _____, A.D., 2023; and passed to second reading

Council members voting "AYE":

on motion of Council member _____, seconded by Council member

Council members voting "NAY":

_____, by the following vote:

The above and foregoing ordinance was read in full and finally adopted by the

following vote upon motion of Council member _____, seconded by Council

Council members voting "AYE":

member _____, on the _____ day of _____, A.D., 2023, at a regular

Council members voting "NAY":

meeting of the City Council:

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____

Lori Merritt Blong, Mayor

ATTEST:

_____

Marcia Bentley-German, City Secretary

APPROVED AS TO CONTENT

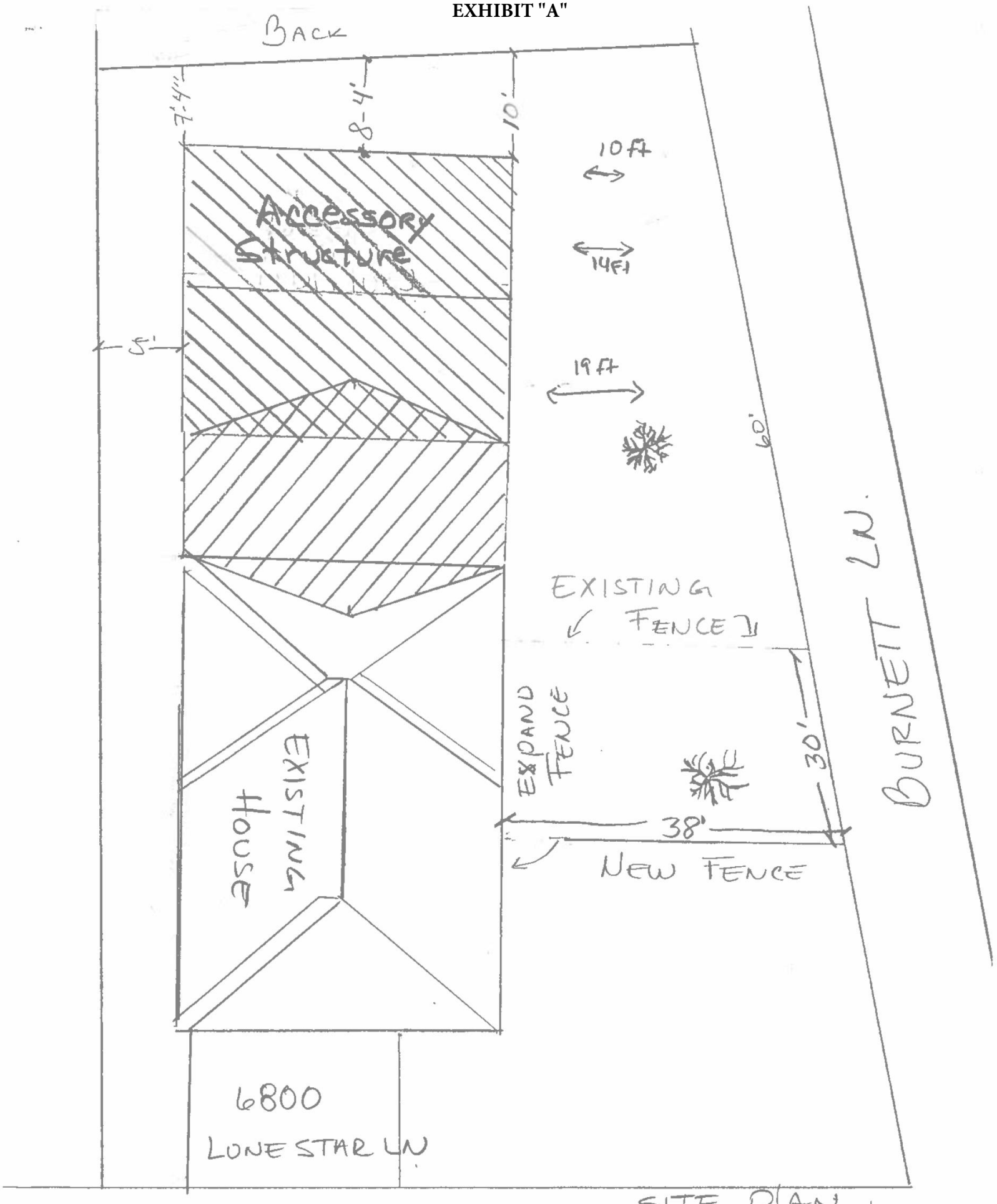
AND COMPLETENESS:

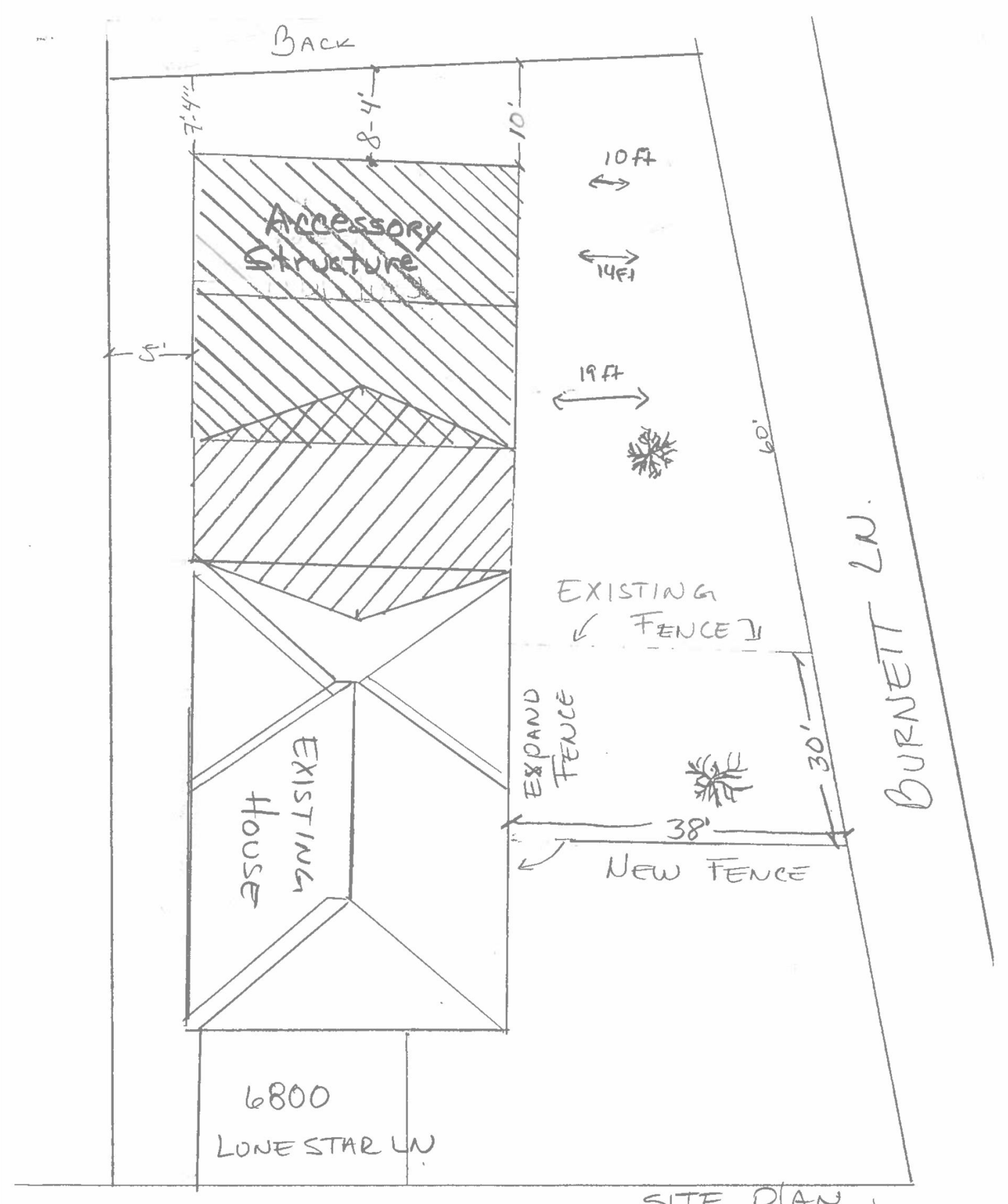
_____
Cristina Burns, Director of Development Services

APPROVED ONLY AS TO FORM:

_____

John Ohnemiller, City Attorney

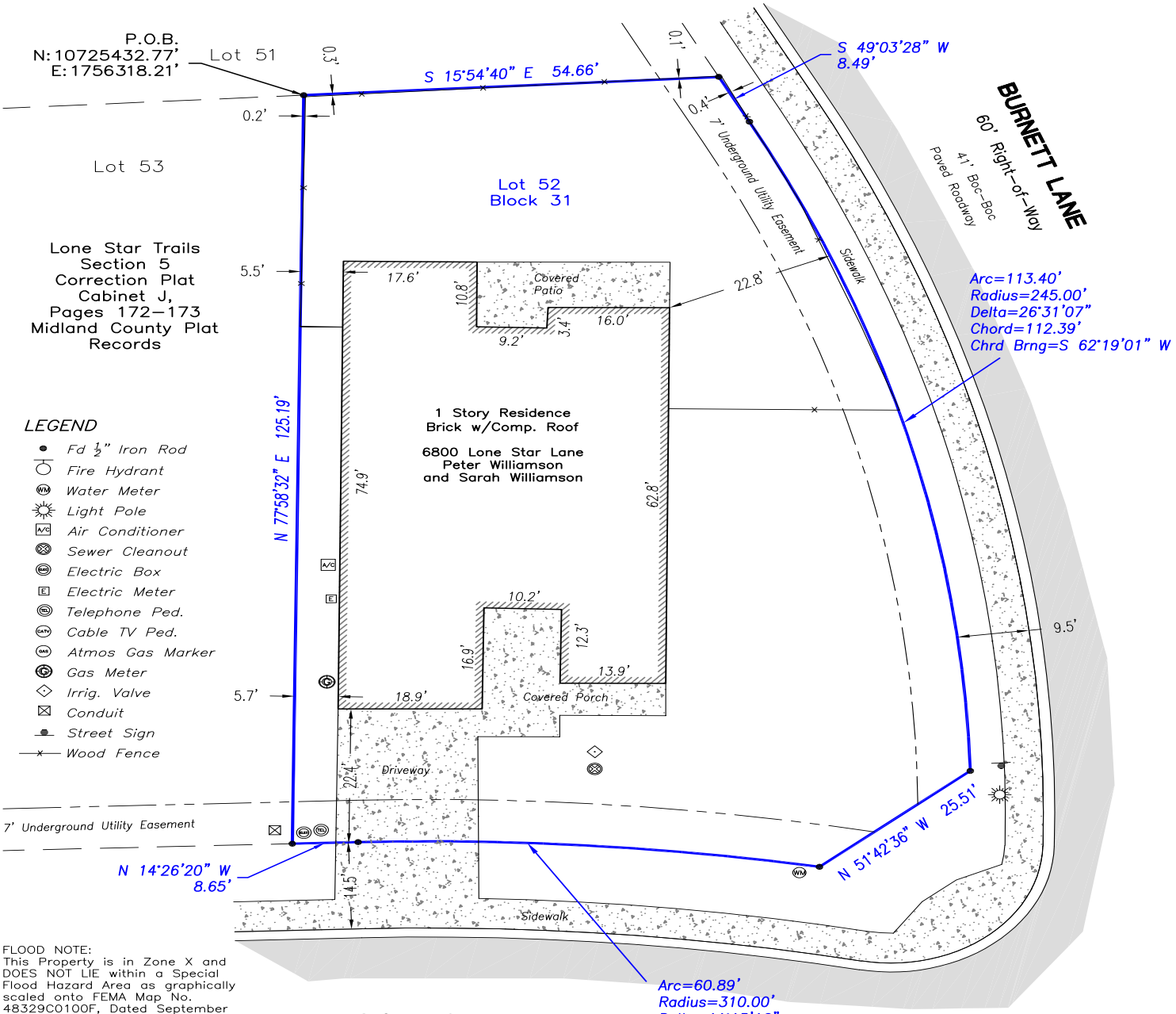

BACK
7'-4"
8'-4"
10'
10 ft
14 ft
Accessory Structure
5'
19 ft
10'
EXISTING FENCE
EXPAND FENCE
30'
38'
NEW FENCE
BURNETT LN.
EXISTING House
6800
LONE STAR LN
SITE PLAN
FRONT
LONE STAR






FRONT LONE STAR

# TITLE SURVEY OF LOT 52, BLOCK 31, LONE STAR TRAILS, SECTION 5, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS.




## LEGEND

- Fd ½" Iron Rod
- Fire Hydrant
- Water Meter
- Light Pole
- Air Conditioner
- Sewer Cleanout
- Electric Box
- Electric Meter
- Telephone Ped.
- Cable TV Ped.
- Atmos Gas Marker
- Gas Meter
- Irrig. Valve
- Conduit
- Street Sign
- Wood Fence

**LONE STAR LANE**
70' Right-of-Way
41' Boc-Boc
Paved Roadway

FLOOD NOTE:
This Property is in Zone X and DOES NOT LIE within a Special Flood Hazard Area as graphically scaled onto FEMA Map No. 48329C0100F, Dated September 16, 2005, Prepared for Midland County, Texas.

SURVEY BASED ON TITLE COMMITMENT GF NO. 171725 PROVIDED BY FIRST NATIONAL TITLE INSURANCE COMPANY ISSUED FEBRUARY 27, 2018 WITH AN EFFECTIVE DATE OF FEBRUARY 2, 2018. SCHEDULE B (survey related items): 10. a. Lone Star Trails homeowners association – SUBJECT TO c–j DOES NOT AFFECT k. Easements as shown on plat recorded in Cabinet J, Pages 172–173 of the Plat Records of Midland County, Texas. AFFECTS, SHOWN HEREON

*I, Aaron S. Burrell, do hereby certify: This plat represents a legal survey made on the ground on March 14, 2018, by me, of the property legally described hereon. All information shown is true and correct to the best of my knowledge and belief.*

Scale 1" =20'

29 March 2018

STATE OF TEXAS REGISTERED AARON SCOTT BURRELL 5689 PROFESSIONAL LAND SURVEYOR

*Aaron S. Burrell*
*Registered Professional Land Surveyor*
*Texas No. 5689*

Bearings shown on this survey are relative to the Texas Coordinate System, NAD 1983, Central Zone (CORS).


AARON BURRELL LAND SURVEYORS, LLC.

**Professional Land Surveying & Mapping**
**Aaron Burrell Land Surveyors, LLC**
**TBPLS Firm No. 10194217**
415 W. Wall St., Suite 204 Midland, Texas 79701
P.O. Box 81041 Midland, Texas 79708
432-848-4439
www.asbsurveyors.com


Page 1 of 1
2018–216


PACKET 43.10 November 14, 2023

MIDLAND Planning Division

**Special Exception Application**

Project Number: _____

Case Number: E-23-0108

| **Applicant** *(if acting as Agent, see affidavit on page 2)* | | Phone (432) 556-0006 Email lillyochoa-02@yahoo.com | |
|---|---|---|---|
| Printed Name: Lilly Ochoa | | | |
| Address 6800 Lone Star Ln | City Midland | State TX | Zip 79705 |

| **Property Owner** | | Phone ( ) Email | |
|---|---|---|---|
| Printed Name: Lilly Ochoa | | | |
| Address 6800 Lone Star Ln | City Midland | State TX | Zip 79705 |

| **Representative** *(if different from Applicant or Property Owner)* | | Phone ( ) Email | |
|---|---|---|---|
| Firm: _____ | | | |
| Printed Name: | | | |
| Address | City | State | Zip |

**Street Address:** 6800 Lone Star Ln Midland, TX 79705

**Legal Description**

Lot: 52 Block: 31 Subdivision: Lone Star Trails

**Current Zoning:**

**This property qualifies as an exception to the City Code because:**

- ☐ It is an expansion of a nonconforming use.
- ☒ There are existing nonconforming structures in the area.
- ☒ The addition of architectural or other projections of a minor extent.

**Reason for Request:** I request your approval for a setback of 7.4 feet.

**Submittal and Fees**

**Items to be submitted with this application form:**

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Site Plan showing:
  - Parking
  - Building Footprint
- Digital Copies of Site Plan (PDF/JPEG)

| Signatures | |
|---|---|
| Applicant (signature): Lilly Ochoa | Date: 9.14.23 |
| Applicant (printed): Lilly Ochoa | |
| Property Owner (signature): Lilly Ochoa | Date: 9.14.23 |
| Property Owner (printed) : Lilly Ochoa | |

*The Special Exception shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.*

If an agent is authorized by the property owner to file and execute the application on behalf of the property owner, the agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared _____ who, being by me duly sworn, upon oath says: That (s)he is authorized by _____, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

_____
Authorized Agent (*signature*)

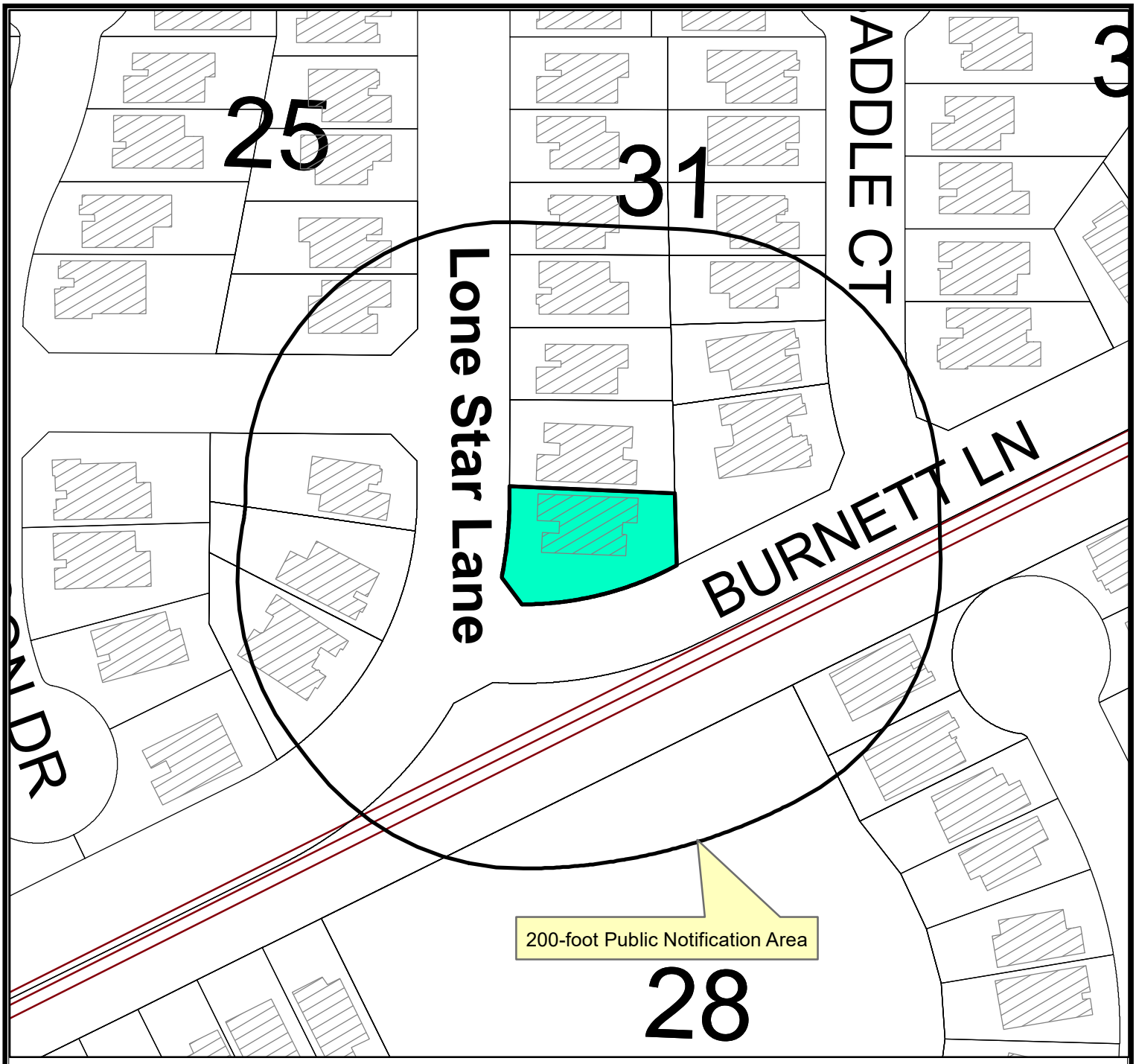
Subscribed and sworn to before me, this _____ day of _____, 20 ___, to certify which witness my hand and seal of office.

_____
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

**FOR OFFICE USE ONLY**

| | |
|---|---|
| ☑ Property Owner Authorization | ☑ Dimensioned Site Plan |
| ☑ Application Fee | ☑ Plans in Digital Format (PDF/JPEG) |
| Check # 2314 | |
| Received By: Landon Ochoa | Date: SEP 18 2023 |

**Application will not be considered for scheduling until reviewed by a planner.**




# LOCATION MAP

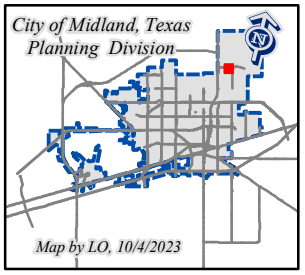
**E-23-0108** **Scale: 1" = 1,298'**

Consider a request by Lilly Ochoa for a Special Exception from 4.09.A.1 – Residential Accessory Buildings and Uses, to allow a reduced rear yard setback for an accessory structure on Lot 52, Block 31, Lone Star Trails, Section 5 (correction plat), City and County of Midland, Texas.

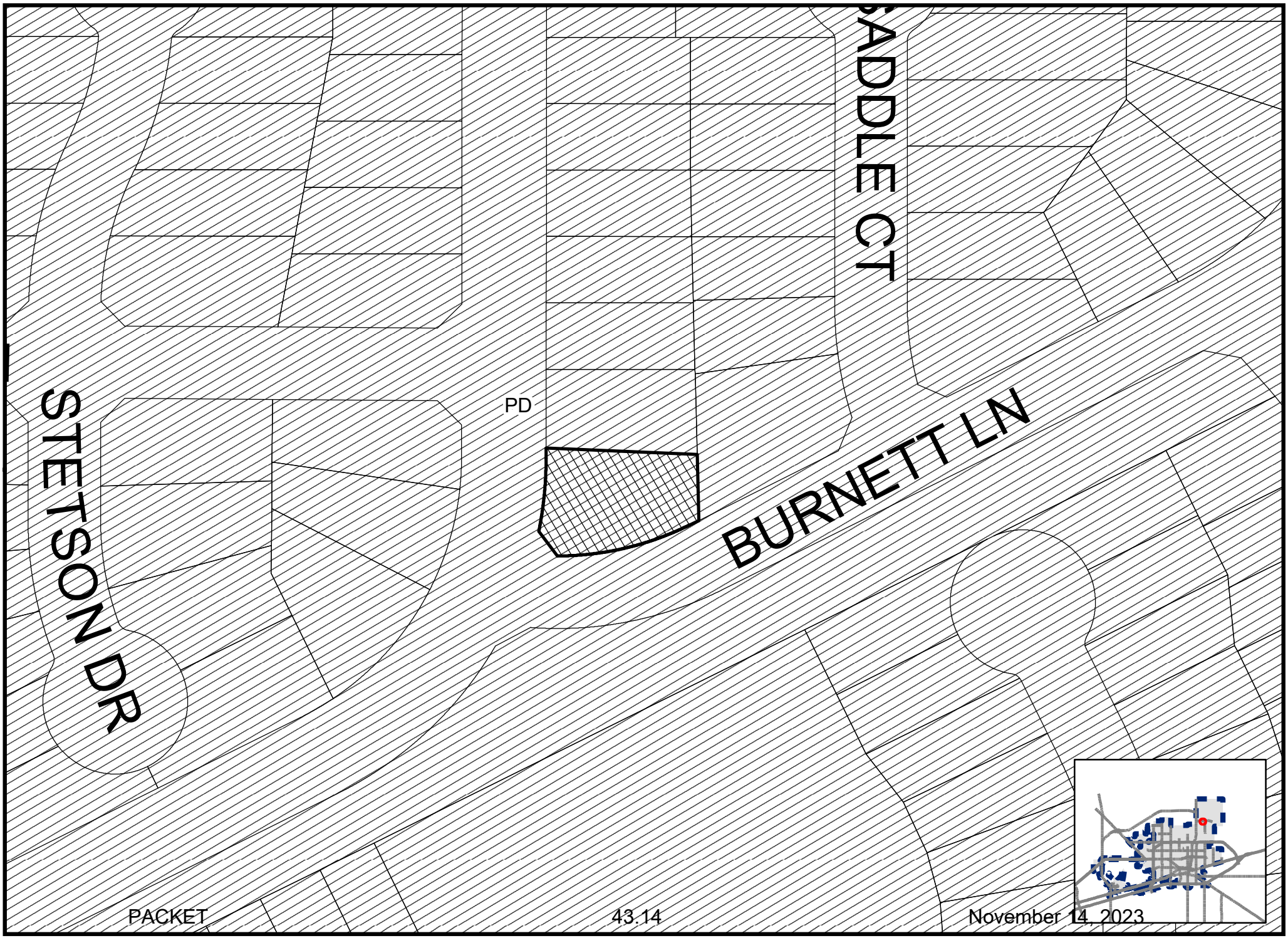
Generally located northeast of the intersection of Lone Star Lane and Burnett Lane (Council District 1)

**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




©THE CITY OF MIDLAND - 2021
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.




*Map By LO, 11/3/2023*

**E-23-0108**

**Scale: 1" = 1,196**

# ZONING MAP

© THE CITY OF MIDLAND - 2021: THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT, NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN. THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.


Google






Lone Star
STOP

**ORDINANCE NO. 9223**

**AN ORDINANCE CHANGING THE ZONING CLASSIFICATION BY AMENDING CHAPTER ONE, TITLE XI, OF THE CITY CODE OF MIDLAND, TEXAS, BY PERMITTING A 302.19-ACRE TRACT OF LAND WHICH IS PRESENTLY ZONED AE, AGRICULTURE ESTATE DISTRICT, TO BE USED AS A PD, PLANNED DISTRICT FOR A HOUSING DEVELOPMENT; BY PERMITTING A 15.83-ACRE TRACT OF LAND WHICH IS PRESENTLY ZONED AE, AGRICULTURE ESTATE DISTRICT, TO BE USED AS AN O-1, OFFICE DISTRICT; SAID TRACTS BEING OUT OF SECTION 12, BLOCK 39, T-1-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE EAST SIDE OF STATE HIGHWAY 349, APPROXIMATELY 840 FEET NORTH OF ARAPAHOE ROAD); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION**

**WHEREAS**, the City Planning and Zoning Commission and the Governing Body of the City of Midland, in compliance with the City Charter and the State law with reference to the creation of Districts under the zoning ordinance regulations and zoning map, have given the requisite notices by United States mail, publication and otherwise; and after a full and fair hearing to all of the property owners generally and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body finds that the public health, safety and general welfare will be best served by the creation of a PD, Planned District for a Housing Development, and an O-1, Office District, as set out hereinafter;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That Chapter 1, Title XI, of the City Code of Midland, Texas, and the official zoning map of the City of Midland, Texas, are hereby amended insofar as the hereinafter described property is concerned, which is presently zoned AE, Agriculture Estate District, and it shall be used as a PD, Planned District for a Housing Development, said property being described as follows:

A 302.19-acre tract of land out of Section 12, Block 39, T-1-S, T&P RR Co. Survey, City and County of Midland, Texas, said tract being more specifically described by metes and bounds in Exhibit "B", which is attached hereto and incorporated herein.

**Special Conditions and Restrictions:**

1. That this planned district shall be developed only with single-family detached residences and permitted accessory structures.

2. That the minimum front yard setback shall be 20 feet. However, the standard reduction to 15 feet shall apply to cul-de-sacs, except that an overhead door to a garage must either be setback 20 feet, or the door must be perpendicular to the front lot line.

3. That the minimum side yard setback shall be five feet except that corner lots shall observe a 10-foot side yard setback.

4. That the minimum rear yard setback shall be 10 feet for one story homes, and 20 feet for two-story homes.

5. That the minimum front yard width shall be 20 feet.

6. That the minimum lot area shall be 5,500 square feet.

7. That the maximum building height shall be 38 feet.

8. That a minimum of two off-street parking spaces shall be provided for each lot.

9. That permitted signs shall conform to the Sign Code as it relates to single-family residential zoning districts.

10. That fence heights shall conform to the regulations for single-family residential zoning districts.

11. That all lot dimensions shall conform to the site plan, which is attached hereto and incorporated herein as Exhibit "A". Exhibit "A" is an approved copy of the preliminary plat.

12. That Texas Department of Transportation access approval must be obtained for any state highway controlled access frontage.

13. That home occupations shall be allowed.

**SECTION TWO.** That Chapter 1, Title XI, of the City Code of Midland, Texas, and the official zoning map of the City of Midland, Texas, are hereby amended insofar as the hereinafter described property is concerned, which is presently zoned AE, Agriculture Estate District, and it shall be used as an O-1, Office District, said property being described as follows:

A 15.83-acre tract of land out of Section 12, Block 39, T-1-S, T&P RR Co. Survey, City and County of Midland, Texas, said tract being more specifically described by metes and bounds in Exhibit "C", which is attached hereto and incorporated herein.

**SECTION THREE.** That the definitions given in the zoning regulations contained in the City Code of the City of Midland, Texas, shall be applicable to such of those terms as are used herein.

**SECTION FOUR.** The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION FIVE.** If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION SIX.** The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION SEVEN.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the 28th day of January, A.D., 2014; and passed to second reading on motion of Council member Dufford, seconded by Council member Hotchkiss, by the following vote:

Council members voting "AYE": Hotchkiss, Love, Sparks, Morales, Dufford, Lacy

Council members voting "NAY": None

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member Lacy, seconded by Council member Love, on the 25th day of February, A.D., 2014, at a regular meeting of the City Council:

Council members voting "AYE": Hotchkiss, Love, Sparks, Morales, Dufford, Lacy

Council members voting "NAY": None

PASSED AND APPROVED THIS 25th day of February, A.D., 2014.

Jerry F. Morales, Mayor

ATTEST:

Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

Robert Patrick, Assistant to the City Manager

APPROVED ONLY AS TO FORM:

Keith Stretcher, City Attorney

# PRELIMINARY

## LONE STAR TRAILS

AN ADDITION TO THE CITY OF MIDLAND BEING A SUBDIVISION OF 318.02 ACRES OF LAND IN SECTION 12, BLOCK 39, T-1-S, T. & P. RR. CO. SURVEY, MIDLAND COUNTY, TEXAS







AND BOUNDS MAY BE A VIOLATION OF CITY ORDINANCE AND STATE LAW AND SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.

2. APPROVAL OF A SITE PLAN BY THE CITY OF MIDLAND MAY BE REQUIRED BEFORE THE DEVELOPMENT OF ANY LOT AND BEFORE A BUILDING PERMIT MAY BE OBTAINED.

6305 82nd STREET
LUBBOCK, TEXAS 79424
806-797-8491

VICINITY MAP

12

BLOCK 39, T-1-S,
T. & P. RR. CO. SURVEY

ONCOR ELECTRIC DELIVERY COMPANY, LLC
INSTRUMENT #2012-23515 O.R.M.C.

Remainder of Tract 18
Vol. 2814 Pg. 708
M.C.D.R.

SHENANDOAH BAR N RANCH LLC
24 SMITH RD STE 601
MIDLAND, TX 79705

N 75°33'40" E 5277.98'

P.O.B.
N: 10726728.11
E: 1757238.82

11

7

BLOCK 39, T-1-S,
T. & P. RR. CO. SURVEY

BLOCK 38, T-1-S,
T. & P. RR. CO. SURVEY

DECORATIVE PERMANENT LTD
5 PENINSULA CENTER
HOUSTON, TX 77046

D R STEEL PROPERTIES, INC.
1850 HOWE AVE
SACRAMENTO, CA 95825

N 14°34'43" W 2588.09'

STATE HIGHWAY 349 125' ROW - VOL. 105/PG. 393 M.C.D.R.

S 14°20'25" E 2668.20'

FUTURE COMMERCIAL TRACTS ZONE C-1 4.3 ACRES

FUTURE COMMERCIAL TRACTS ZONE C-1 4.5 ACRES

GREEN TREE

MAVERICK

BUFFALO

LIZZARD

RED RACK

CATTLEMAN'S TRAIL

LASSO

SADDLEHORN

BRAND

DOGWOOD

WRANGLER

HONEYSUCKLE

YELLOW ROSE

COTTON TAIL

CREEPER CREEK

LEATHERWOOD

BURNET

BRIDLE

HUNTSMAN

VICTORIA

BROOM

SIX FLAGS

FAIRGROUNDS ROAD

SHAWNEE

SHERMAN

COTTON

TEXAN

DRILL SITE 1

DRILL SITE 2

DRILL SITE 3

DRILL SITE 4

DRILL SITE 5

DRILL SITE 6

DRILL SITE 7

DRILL SITE 8

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DRIL

**Stanford Surveying Company**
P.O. Box 8490
Midland, TX 79708
Office 432-699-5708
Fax 432-699-5510
www.stanfordsurveying.com

PD

Metes and Bounds Description for a 302.19 Acre Tract of Land being 101.74 acres out of a 107.02 Acre Tract of land as recorded in Instrument No. 2013-27670, Official Public Records, Midland County, Texas, and 200.45 acres out of a 211.00 Acre Tract of Land as recorded in Instrument No. 2013-9994, Official Public Records, Midland County, Texas, located in Section 12, Block 39, T-1-S, Midland County, Texas.

BEGINNING at (N=10726228.11' & E=1757239.82') a 1/2" iron rod and plastic cap marked "RPLS 4413" found in the east boundary line of said Section 12 and the west boundary line of Section 7, Block 38, T-1-S, T. & P. RR. Co. Survey, Midland County, Texas, for the northeast corner of the 107.02 acre tract and the northeast corner of this tract;

THENCE, along the east boundary line of said Section 12 and the west boundary line of said Section 7, S 14°20'25" E a distance of 2668.20 feet to a 1/2" iron rod and plastic cap marked "RPLS 4413" found for the southeast corner of the 211.00 acre tract, the northeast corner of a 22.82 Acre Tract of Land as described in Volume 869, Pages 567, 571, 575, 577 and 579, Midland County, Deed Records, Midland County, Texas, and the southeast corner of this tract, from which a City of Midland Control Point marked "E89-7600" bears S 17°37'12" E a distance of 10437.38 feet;

THENCE, along the north boundary line of the 22.82 acre tract and the south boundary line of the 211.00 acre tract, S 75°36'58" W a distance of 532.14 feet to a copperweld rod marked "TESSCO" found for a corner of this tract;

THENCE, along the north boundary line of the 22.82 acre tract and the south boundary line of the 211.00 acre tract, S 76°40'54" W a distance of 4036.86 feet to a 1/2" iron rod and plastic cap marked "RPLS 4413" found for a corner of this tract;

THENCE, along the north boundary line of the 22.82 acre tract and the south boundary line of the 211.00 acre tract, S 75°36'58" W a distance of 334.78 feet to a point for the southwest corner of this tract;

THENCE N 14°23'02" W a distance of 288.62 feet to a point for a corner of this tract;

THENCE S 76°24'46" W a distance of 147.33 feet to a point for a corner of this tract;

THENCE N 15°03'32" W a distance of 312.28 feet to a point for a corner of this tract;

THENCE N 74°40'29" E a distance of 44.89 feet to a point for a corner of this tract;

THENCE N 14°34'43" W a distance of 1984.67 feet to a point in the north boundary line of the 107.02 acre tract and for the northwest corner of this tract, from which a 1/2" iron rod and plastic cap marked "RPLS 4413" found in the east Right-of-Way line of State Highway 349 and the northwest corner of the 107.02 acre tract bears S 75°33'40" W a distance of 260.00 feet;

THENCE, along the north line of the 107.02 acre tract, N 75°33'40" E a distance of 5017.98 feet to the POINT OF BEGINNING.

RECEIVED
PACKET 2013
CITY OF MIDLAND
PLANNING DIVISION



November 14, 2023

**EXHIBIT B**

CASE NO. Z-13-054

**Stanford Surveying Company**
P.O. Box 8490
Midland, TX 79708
Office 432-699-5708
Fax 432-699-5510
www.stanfordsurveying.com

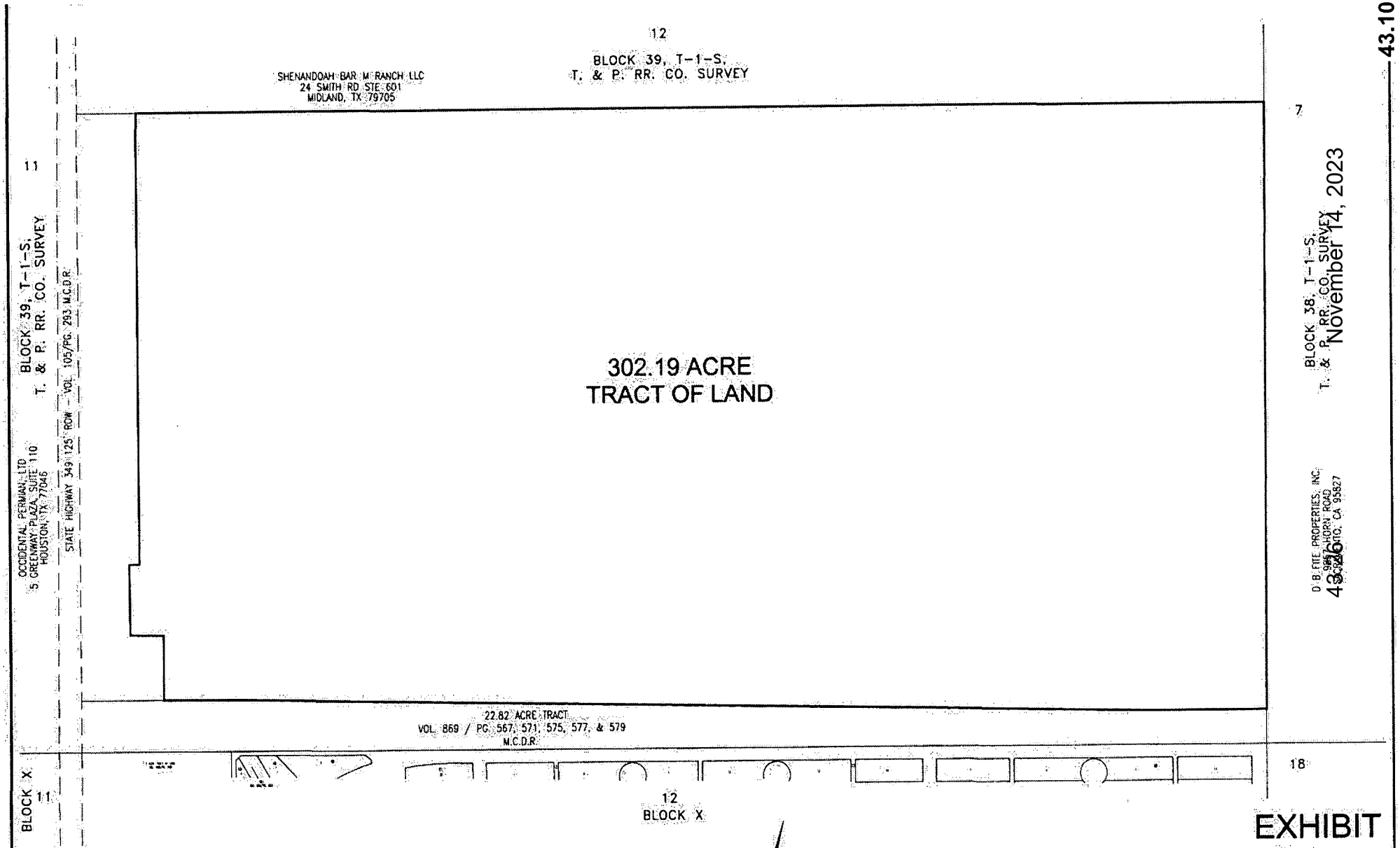
Bearing, Distances and Coordinates are based upon the Texas State Plane Coordinate System NAD 83 Central Zone and are relative to the City of Midland GPS Control Monuments as provided by the City of Midland. Acreages shown are surface values.

This document was prepared under 22 TAC 663.21, and is not to be used to convey or establish interest in real property except those rights and interest implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared.

See attached Exhibit

STATE OF TEXAS
REGISTERED
AARON SCOTT BURRELL
5689
PROFESSIONAL
LAND SURVEYOR

Aaron S. Burrell, RPLS No. 5689
December 18, 2013




November 14, 2023

43.10

EXHIBIT

302.19 ACRES OF LAND LOCATED IN
SECTION 12, BLOCK 39, T-1-S,
T. & P. RR. CO. SURVEY, MIDLAND COUNTY, TEXAS

600 0 600 1200 1800 Feet

STANFORD SURVEYING COMPANY
P.O. BOX 8490
MIDLAND, TEXAS 79708-8490
432-699-5708

PACKET

| | |
|---|---|
| DRAWN BY Justin Robertson | DATE 12-18-2013 |
| SCALE 1" = 600' | FILE NAME LST EXHIBIT - 302.19AC. |

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JOB NO. 7-13-054

**Stanford Surveying Company**
P.O. Box 8490
Midland, TX 79708
Office 432-699-5708
Fax 432-699-5510
www.stanfordsurveying.com

O-1, DISTRICT

Metes and Bounds Description for a 15.83 Acre Tract of Land being 5.27 acres out of a 107.02 Acre Tract of land as described in Instrument No. 2013-27670 and 10.56 acres out of a 211.00 Acre Tract of Land as described in Instrument No. 2013-9994, Official Public Records, Midland County, Texas, located in Section 12, Block 39, T-1-S, Midland County, Texas.

BEGINNING at (N=10722407.30' & E=1752779.99') a copperweld rod found in the east Right-of-Way of State Highway 349, for the northwest corner of a 22.82 Acre Tract of Land as described in Volume 869, Page 567, Deed Records, Midland County, Texas, the southwest corner of the 211.00 acre tract and the southwest corner of this tract, from which a City of Midland Control Point, NGS Bench Mark N 1126, bears S 13°11'29" E a distance of 4903.47 feet;

THENCE, along the east Right-of-Way line of State Highway 349 and the west boundary line of the 211.00 acre tract, N 14°34'43" W a distance of 2588.09 feet a 1/2" iron rod and plastic cap marked "RPLS 4413" found for the northwest corner of the 211.00 acre tract and the northwest corner of this tract;

THENCE, along the north boundary line of the 211.00 acre tract, N 75°33'40" E a distance of 260.00 feet to a point for the northeast corner of this tract;

THENCE S 14°34'43" E a distance of 1984.67 feet to a point for a corner of this tract;

THENCE S 74°40'29" W a distance of 44.89 feet to a point for a corner of this tract;

THENCE S 15°03'32" E a distance of 312.28 feet to a point for a corner of this tract;

THENCE N 76°24'46" E a distance of 147.33 feet to a point for a corner of this tract;

THENCE S 14°23'02" E a distance of 288.62 feet to a point in the north boundary line of the 22.82 acre tract, in the south boundary line of the 211.00 acre tract and for the southeast corner of this tract;

THENCE, along the north boundary line of the 22.82 acre tract and the south boundary line of the 211.00 acre tract, S 75°36'58" W a distance of 364.06 feet to the POINT OF BEGINNING.

Bearing, Distances and Coordinates are based upon the Texas State Plane Coordinate System NAD 83 Central Zone and are relative to the City of Midland GPS Control Monuments as provided by the City of Midland. Acreages shown are surface values.

This document was prepared under 22 TAC 663.21, and is not to be used to convey or establish interest in real property except those rights and interest implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared.

See attached Exhibit.

STATE OF TEXAS
REGISTERED
AARON SCOTT BURRELL
5689
PROFESSIONAL
LAND SURVEYOR

Aaron S. Burrell, RPLS No. 5689
December 16, 2013

# City Council Agenda

Approved for Agenda:
**RPatrick**
City Manager's Office

**MEETING DATE:** **February 25, 2014**

**TO:** **CITY COUNCIL/CITY MANAGER**

**FROM:** **Jim Compton, Planning Division Manager**

**SUBJECT:** **Consider an ordinance on second reading on a request by Real Property Resources/Lone Star trails for a zone change from AE, Agriculture-Estate District to Planned District for a Housing Development and O-1, Office District on a 302.19-acre tract of land and 15.83-acre tract of land all out of Section 12, Block 39, T-1-S, T&P RR Co. Survey, City and County of Midland, Texas. (Generally located on the east side of State Highway 349, approximately 840 feet north of Arapahoe Road – District 3.)**

---

**Purpose:**

Consider an ordinance on second reading on a request by Real Property Resources/Lone Star Trails for a zone change from AE, Agriculture-Estate District to Planned District for a Housing Development for 302-acres and 15.83-acres to O-1, Office District.

**Recommended City Council Action**

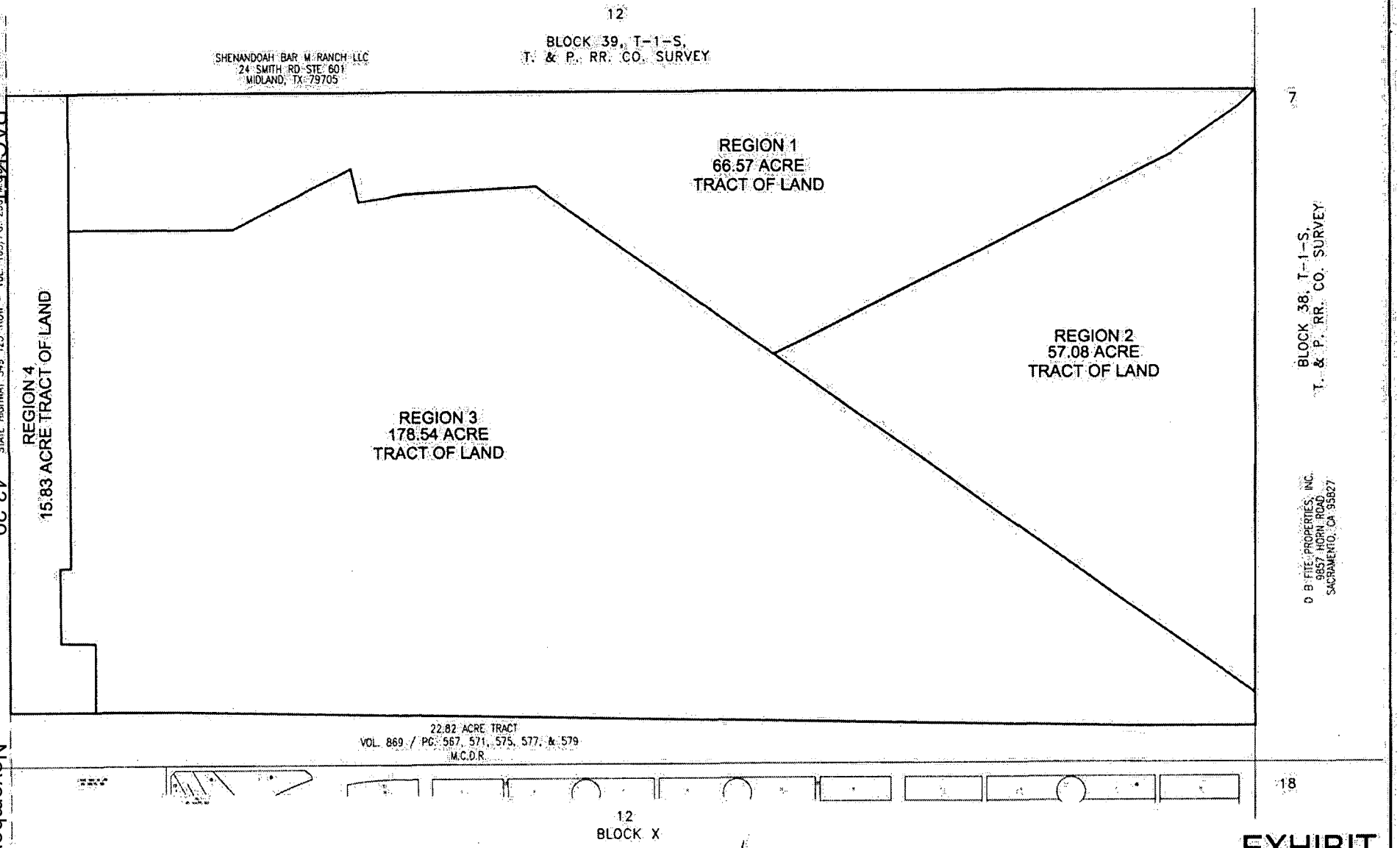
☒ Approve ☐ Deny ☐ Direction/Informational

**Fiscal Impact:**

There is no cost to the City for processing this application.

**Discussion:**

This is a request to rezone approximately 316 acres located on the east side of N. Big Spring Street, north of Loop 250. Fifteen acres adjacent to Big Spring Street are proposed to be rezoned to an O-1, Office District. The majority of the land is proposed to be rezoned to PD, Planned District for a Housing Development. The Planning and Zoning Commission considered this request on January 6, 2013. A motion to approved failed by a 3-3 vote.




# EXHIBIT

## 318.02 ACRES OF LAND LOCATED IN SECTION 12, BLOCK 39, T-1-S, T. & P. RR. CO. SURVEY, MIDLAND COUNTY, TEXAS

STANFORD SURVEYING COMPANY
P.O. BOX 8490
MIDLAND, TEXAS 79708-8490
432-699-5708

| | |
|---|---|
| DRAWN BY Justin Robertson | DATE 12-16-2013 |
| SCALE 1" = 600' | FILE NAME 1ST EXHIBIT |

© 2013 ALL RIGHTS RESERVED

600 0 600 1200 1800 Feet

# PLANNING AND ZONING COMMISSION

## January 6, 2014

| | |
|---|---|
| **CASE:** | Z-13-054, Real Property Resources/Lone Star Trails |
| **REQUEST:** | Hold a public hearing and consider a request for a zone change from AE, Agriculture-Estate District, to Planned District for a Housing Development and O-1, Office District |
| **APPLICANT/OWNER:** | Real Property Resources, Inc. |
| **REPRESENTATIVE:** | Keith Smith. |
| **LEGAL DESCRIPTION:** | On a 302.19-acre tract of land and 15.83-acre tract of land all out of Section 12, Block 39, T-1-S, T & P RR Co. Survey, City and County of Midland, Texas. |
| **LOCATION:** | Generally located on the east side of State Hwy 349, approximately 840 feet north of Arapahoe Road. |
| **CURRENT ZONING:** | AE, Agriculture-Estate District. |
| **ASSOCIATED CASES:** | P-13-074, Lone Star Trails |

**DETAILS OF REQUEST:**

1. The subject property is located on the east side of State Highway 349, approximately 840 feet north of Arapahoe Road. Real Property Resources, the owner, is requesting a zone change on the property from AE, Agriculture-Estate District, to a Planned District for Housing Development for 302-acres, with the underlining zoning of 1F-3, One-Family Dwelling District and 15.83-acres to O-1, Office District (See Exhibit A).

**SURROUNDING ZONING AND LAND USE:**

2. The property is on the east side of N. State Highway 349 and on the north, west, and east are AE, Agriculture-Estate Districts. To the and south is a PD, Planned District for Housing Development and PD, Planned District for an Industrial District.

The reason for the smaller front setback line is to allow larger homes on a smaller lot. We find that the zone change from AE, Agriculture-Estate District, to a Planned District Housing Development (with an underlining zoning of 1F-3, One-Family Dwelling District is reasonable.

**SITE PLAN:**

3. The site plan, Exhibit A, provides the layout and information about the site. The site will have 952 lots developed along with three common parks of 6.5-acres, 2.8 acres, and .85-acres. Both Lone Star and Buffalo Gap will have medians with hike and bike trails (See Exhibit B). 15.83-acres located on the west side of the proposed plat is proposed for O-1, Office Development.

**STAFF RECOMMENDATION:**

**Staff recommends approval of this request for a zone change from AE, Agriculture-Estate District to O-1, Office District. We also recommend approval of the PD, Planned District for Housing District subject to the following conditions:**

**A. This Planned district shall be developed with single-family detached residences.**

**B. The minimum front yard setback shall be 20 feet. However, the standard reduction to 15 feet shall apply to cul-de-sacs, except that an overhead door to a garage must either be setback 20 feet, or the door must be perpendicular to the front line.**

**C. The minimum side yard setback shall be five feet except that corner lots shall observe a 10-foot side yard setback.**

**D. The minimum rear yard setback shall be 10 feet for one story homes, and 20 feet for two-story homes.**

**E. The minimum front yard width shall be 45 feet.**

**F. The minimum lot area shall be 5,500 square feet.**

**G. The maximum building height shall be 38 feet.**

**H. A minimum of two off-street parking spaces shall be provided for each lot.**

**I. Permitted signs shall conform to the Sign Code as it relates to single-family residential zoning districts.**

**J. Fence heights shall conform to the regulations for single-family residential zoning districts.**

**K. All lot sizes shall conform to the site plan Exhibit A, which will be an approved copy of the preliminary plat.**

**L. That TxDot access approval is granted for any State Highway controlled access frontage.**

Jim Compton
Planning Division Manager
Department of Development Services

Robert Baronti, Jr., AICP, Sr. Planner
Department of Development Services

**Attachments:**

Application
Maps
Exhibit A
Exhibit B

Case Number: Z-13054

# CITY OF MIDLAND
## Planning Division

## APPLICATION TO CHANGE ZONING CLASSIFICATION

Real Property Resources Inc
Applicant Name (Phone/e-mail)

6305 82nd St Lubbock Tx 79424
Address Zip Code

See Above
Property Owner Name (Phone/e-mail)

~~5603 Champions Dr~~
Address Zip Code 432-230-4221

Keith Smith Keith s@betenbough.com
Representative Name (Phone/e-mail)

5603 Champions Dr Midland Tx 79706
Address Zip Code

Street address and Legal Description of property (complete Lot, Block, and Subdivision Name or if unplatted, attach a Metes and Bounds description with surveyor's seal). Each district must be described separately. A 318.02 Acres Tract of Land in Section 12 block 39, T-1-S, T&P RR Co Survey Midland County TX

PRESENT ZONE: ~~FD~~ AE REQUESTED ZONE: ~~PD + PD~~ O-1
(List by tracts if more than one district is requested)

Reason for Zone Change Request: We are building a Residential Community with Commercial Frontage on Hwy 349.

Present Use of Property: Vacant Land

Proposed Use of Property: Residential Community with commercial frontage on Hwy 349.

How will zone change affect the public health, safety and welfare? It will improve the Communities Ability to secure quality Affordable housing.

Describe how conditions affecting the property have changed since present zoning designation: The conditions of the property has not changed but the population and housing needs have dramatically increased in our Area.

Is a Specific Use Permit with Term for alcoholic beverages sales needed? ____ Yes ✓ No

**APPLICATION FEES:**

- Single, standard zone change: **$400**. Multiple, standard zone change: add **$100** per additional district.
- Single PD, Planned District zone change: **$550**. Multiple PD proposal: add **$100** per district.
- If a Traffic Impact Analysis is required, a fee of up to $500.00 will be assessed.

**SITE PLAN SUBMITTALS** *(if applicable)*:

16 copies (FOLDED) of the PD site plan: _____

Site Plan in digital format .pdf and .jpg: _____

**SIGNATURE** *(by property owner only - authorized agent must sign affidavit below)*

Property Owner (signature): _____ Date: 11/11/13

---

**If an Agent is authorized by the property owner to file and execute the application on behalf of the property owner, the Agent must complete the affidavit below.**

STATE of TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared _____ who, being by me duly sworn, upon oath says: That (s)he is authorized by _____, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

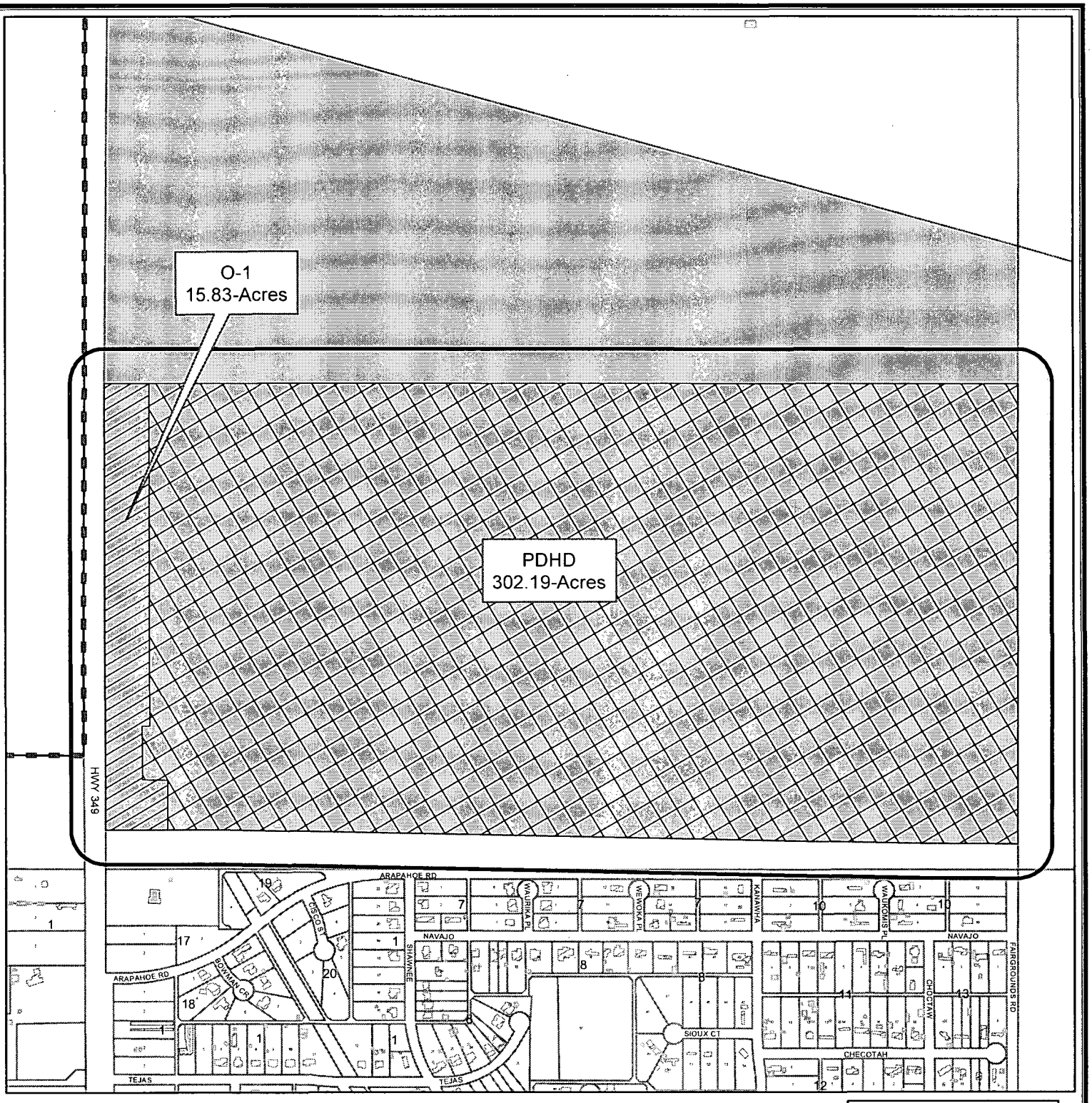
_____
Authorized Agent (signature)

Subscribed and sworn to before me, this _____ day of _____, 20 ___, to certify which witness my hand and seal of office.

_____
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

FOR OFFICE USE ONLY
Rec'd By: BB Date: 11/13/13
Assigned: BB
For: P+Z On: 1/6/14

****Application will not be considered for scheduling until reviewed by a planner.****




# PROPERTY OWNER NOTIFICATION MAP

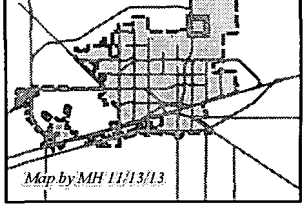
**Z - 13 - 054** **Scale: 1" = 800'**

Consider a request for a zone change from AE, Agriculture Estate District to PD, Planned District for a Housing Development on a 302.19-acre tract of land and to O-1, Office District on a 15.83-acre tract of land all out of Section 12, Block 39, T-1-S, T & P RR Co. Survey, City and County of Midland, Texas.

LEGEND

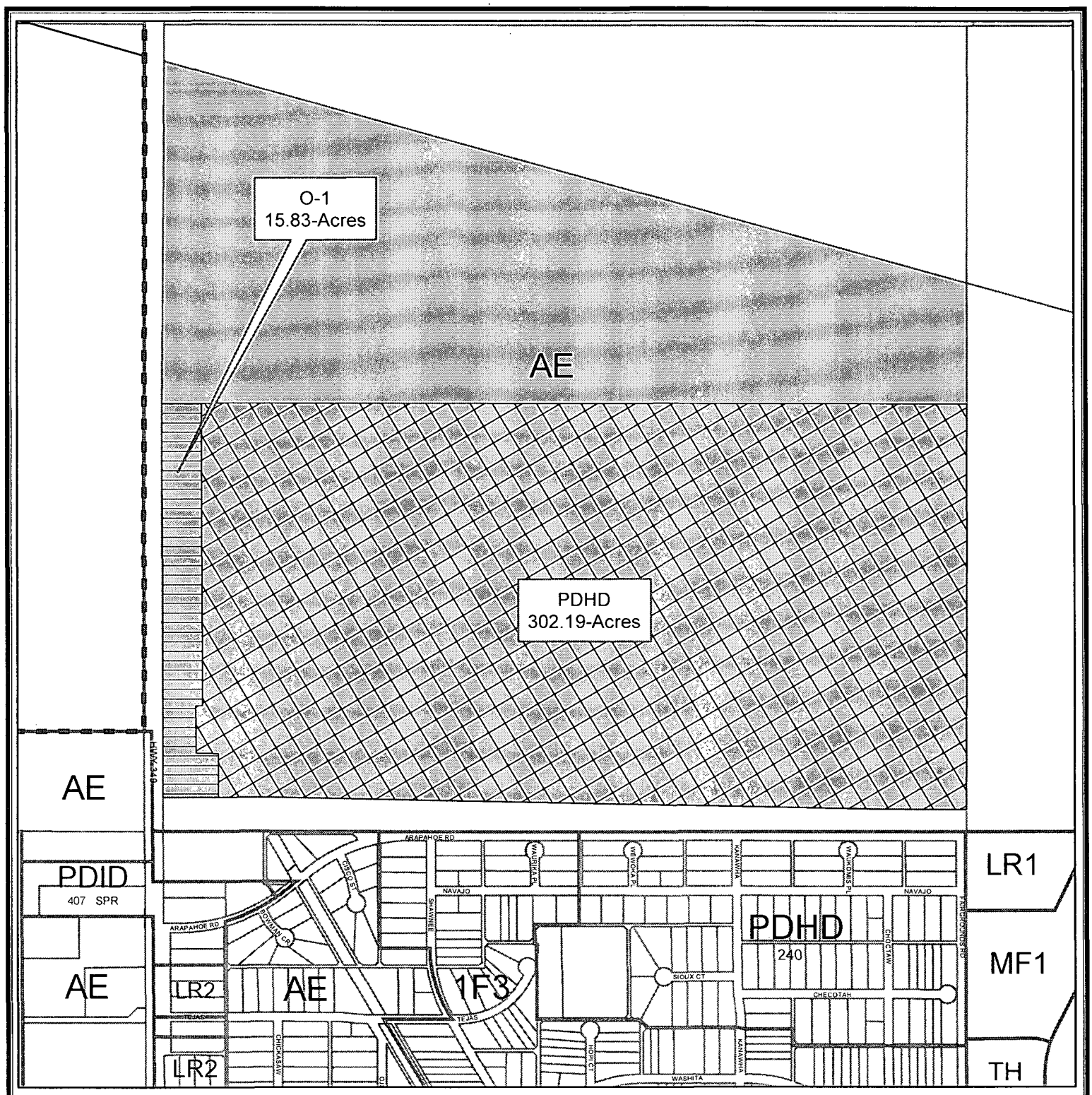
- CITY LIMITS
- 200 FT. LEGAL NOTICE LIMIT
- CITY PARCEL
- COUNTY PARCEL
- PUBLIC BLDGS
- PRIVATE BLDGS
- ACCESSORY BLDGS

*City of Midland, Texas*
*Planning Division*



*Map by MH 11/13/13*

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# ZONING MAP

**Z - 13 - 054** **Scale: 1" = 900'**

Consider a request for a zone change from AE, Agriculture Estate District to PD, Planned District for a Housing Development on a 302.19-acre tract of land and to O-1, Office District on a 15.83-acre tract of land all out of Section 12, Block 39, T-1-S, T & P RR Co. Survey, City and County of Midland, Texas.

## LEGEND

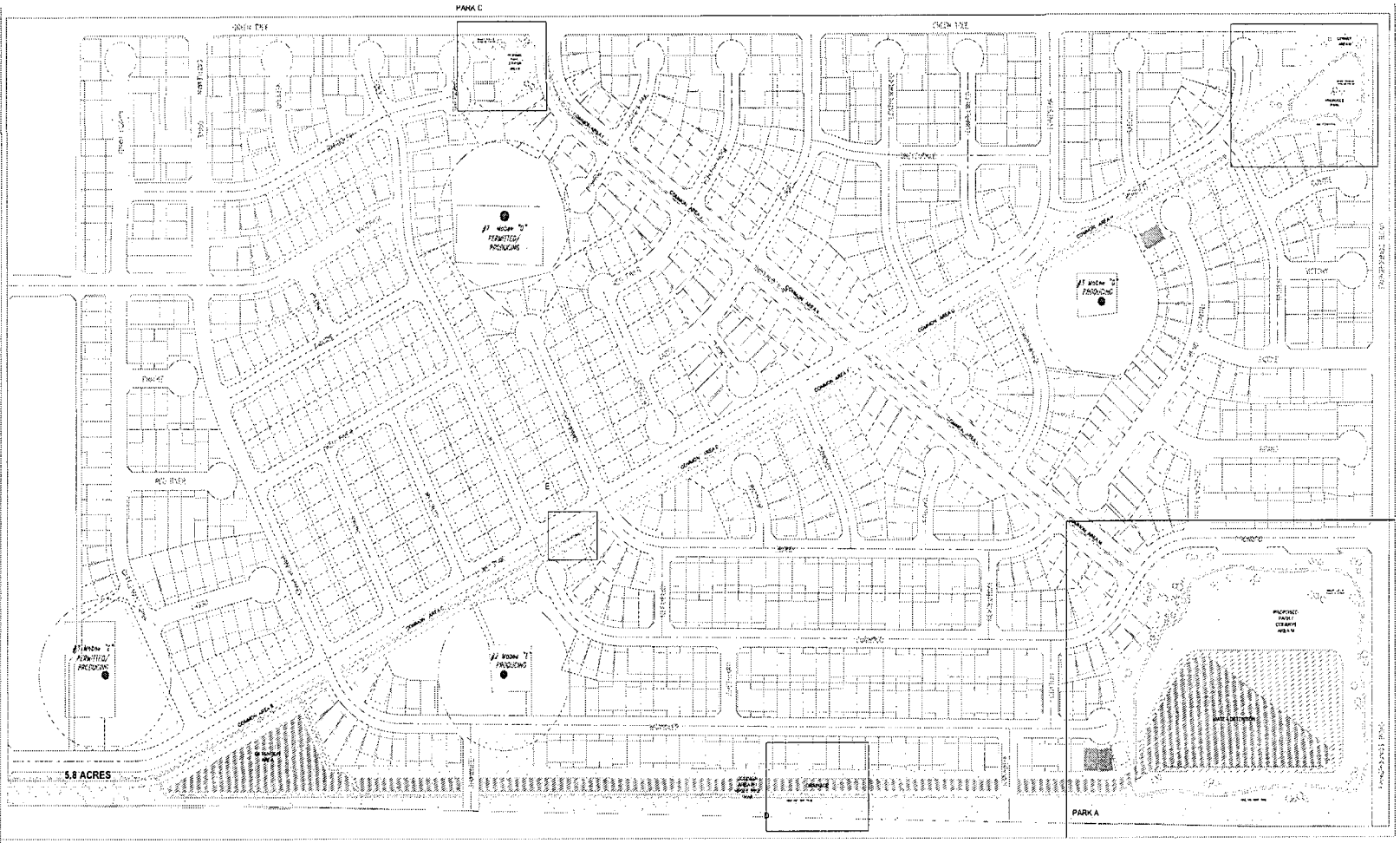
ZONING — CITY PARCELS

CITY LIMITS — COUNTY PARCELS

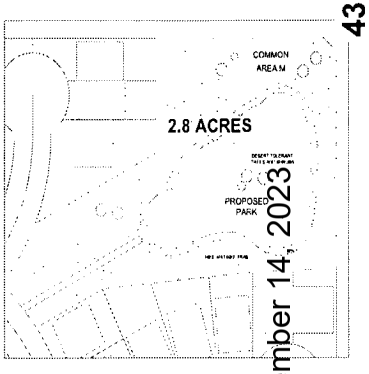
**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, O2 | OFFICE |
| CE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| 1F1, 1F2, 1F3 | ONE-FAMILY DWELLING | LR1, LR2 ,LR3 | LOCAL RETAIL |
| MH | MOBILE HOME DWELLING | C1, C2, C3 | COMMERCIAL |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |

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# PARK B




43.20

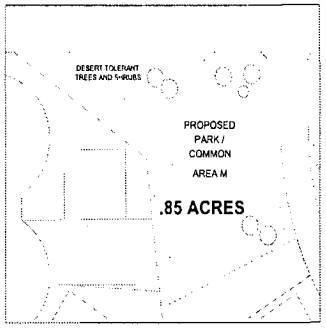
November 14, 2023

6.08 ACRES - COMMON AREA B-H
2.39 ACRES - COMMON AREA I-J

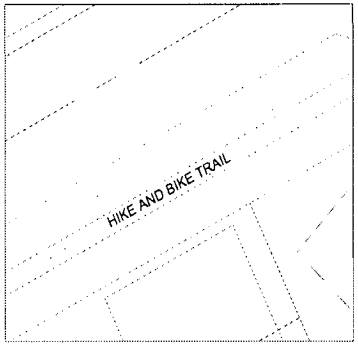
TOTAL: 952 LOTS

43.37

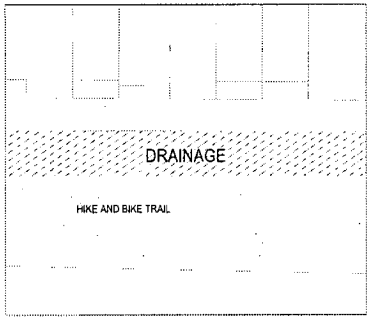
# PARK C



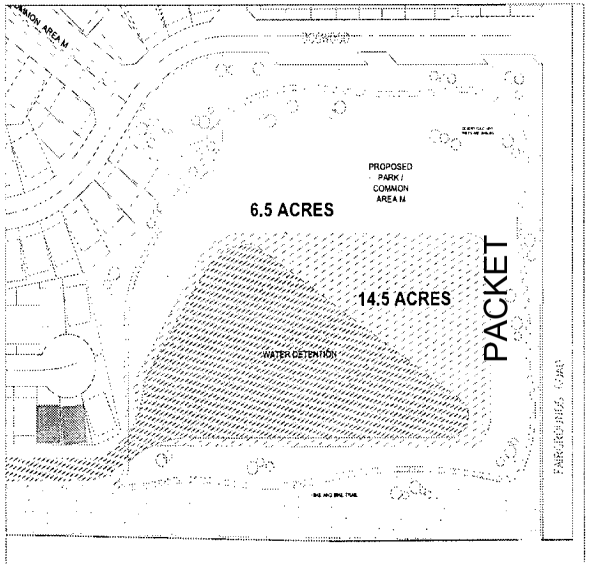

## E: MEDIAN WITH HIKE AND BIKE TRAIL




## D: SOUTH DRAINAGE




# PARK A




PACKET

PREMLIMINARY PLAN

LONE STAR TRAILS

AN ADDITION TO THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

AMD
CIVIL ENGINEERING
LAND SURVEYING
AMD Engineering, LLC
2807 74th Street, Suite 8
Lubbock, TX 79423
Phone: 806-771-5978
Fax: 806-771-7625
TBPE Reg. # F-9197

Accuracy - Efficiency - Integrity

Within the residential area, 952 residential lots are planned. However, no alley dedications are proposed, as required by the Subdivision Code. The site plan associated with this zone change request is an exact copy of the plat. Should the zoning be approved, the City Council would see the associated preliminary plat at a later meeting. Staff is recommending approval of this zoning request at this time.

**ORDINANCE NO. _____**

**AN ORDINANCE CHANGING THE ZONING CLASSIFICATION BY AMENDING CHAPTER ONE, TITLE XI, OF THE CITY CODE OF MIDLAND, TEXAS, BY PERMITTING A 302.19-ACRE TRACT OF LAND WHICH IS PRESENTLY ZONED AE, AGRICULTURE ESTATE DISTRICT, TO BE USED AS A PD, PLANNED DISTRICT FOR A HOUSING DEVELOPMENT; BY PERMITTING A 15.83-ACRE TRACT OF LAND WHICH IS PRESENTLY ZONED AE, AGRICULTURE ESTATE DISTRICT, TO BE USED AS AN O-1, OFFICE DISTRICT; SAID TRACTS BEING OUT OF SECTION 12, BLOCK 39, T-1-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE EAST SIDE OF STATE HIGHWAY 349, APPROXIMATELY 840 FEET NORTH OF ARAPAHOE ROAD); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION**

**WHEREAS**, the City Planning and Zoning Commission and the Governing Body of the City of Midland, in compliance with the City Charter and the State law with reference to the creation of Districts under the zoning ordinance regulations and zoning map, have given the requisite notices by United States mail, publication and otherwise; and after a full and fair hearing to all of the property owners generally and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body finds that the public health, safety and general welfare will be best served by the creation of a PD, Planned District for a Housing Development, and an O-1, Office District, as set out hereinafter;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That Chapter 1, Title XI, of the City Code of Midland, Texas, and the official zoning map of the City of Midland, Texas, are hereby amended insofar as the hereinafter described property is concerned, which is presently zoned AE, Agriculture Estate District, and it shall be used as a PD, Planned District for a Housing Development, said property being described as follows:

A 302.19-acre tract of land out of Section 12, Block 39, T-1-S, T&P RR Co. Survey, City and County of Midland, Texas, said tract being more specifically described by metes and bounds in Exhibit "B", which is attached hereto and incorporated herein.

**Special Conditions and Restrictions:**

1. That this planned district shall be developed only with single-family detached residences and permitted accessory structures.

2. That the minimum front yard setback shall be 20 feet. However, the standard reduction to 15 feet shall apply to cul-de-sacs, except that an overhead door to a garage must either be setback 20 feet, or the door must be perpendicular to the front lot line.

3. That the minimum side yard setback shall be five feet except that corner lots shall observe a 10-foot side yard setback.

4. That the minimum rear yard setback shall be 10 feet for one story homes, and 20 feet for two-story homes.

5. That the minimum front yard width shall be 20 feet.

6. That the minimum lot area shall be 5,500 square feet.

7. That the maximum building height shall be 38 feet.

8. That a minimum of two off-street parking spaces shall be provided for each lot.

9. That permitted signs shall conform to the Sign Code as it relates to single-family residential zoning districts.

10. That fence heights shall conform to the regulations for single-family residential zoning districts.

11. That all lot dimensions shall conform to the site plan, which is attached hereto and incorporated herein as Exhibit "A". Exhibit "A" is an approved copy of the preliminary plat.

12. That Texas Department of Transportation access approval must be obtained for any state highway controlled access frontage.

13. That home occupations shall be allowed.

**SECTION TWO.** That Chapter 1, Title XI, of the City Code of Midland, Texas, and the official zoning map of the City of Midland, Texas, are hereby amended insofar as the hereinafter described property is concerned, which is presently zoned AE, Agriculture Estate District, and it shall be used as an O-1, Office District, said property being described as follows:

A 15.83-acre tract of land out of Section 12, Block 39, T-1-S, T&P RR Co. Survey, City and County of Midland, Texas, said tract being more specifically described by metes and bounds in Exhibit "C", which is attached hereto and incorporated herein.

**SECTION THREE.** That the definitions given in the zoning regulations contained in the City Code of the City of Midland, Texas, shall be applicable to such of those terms as are used herein.

**SECTION FOUR.** The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION FIVE.** If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION SIX.** The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION SEVEN.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2014; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2014, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2014.

_____
Jerry F. Morales, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Robert Patrick, Assistant to the City Manager

APPROVED ONLY AS TO FORM:

_____
Keith Stretcher, City Attorney

MIDLAND
Planning Division

WATSON DANICA L
6907 SADDLE CT
TX MIDLAND 79705

OCT 19 2023

**PUBLIC NOTICE**

The **City Council** of the City of Midland, Texas will hold a public hearing at **10:00 a.m.** on **Tuesday, October 24, 2023,** in the Council Chambers, City Hall, 300 N. Loraine, Midland, Texas 79701, on a request by **Lilly Ochoa** for approval of a **Special Exception from the PD, Planned District for Housing Development (Ordinance 9223), to allow a reduced rear yard setback for a single-family dwelling** on the following described property:

**LEGAL DESCRIPTION:** Lot 52, Block 31, Lone Star Trails, Section 5 (correction plat), City and County of Midland Texas.

**LOCATION:** Generally located at the northeast corner of the intersection of Lone Star Lane and Burnett Lane (Council District 1)

Not to be considered a part of the Public Notice: 1) See reverse side for location map; 2) In order to be considered as an official objection to this request a response **must be submitted by mail or delivered *in writing*** to the Planning Division at the address listed above. An official objection may be filed by completing this notice and returning it to the address listed above.

**I object to this request** X **Comments:** Zoning Ordinance should be enforced to protect surrounding property values. The Requestor built this structure without a Midland Building permit and is requesting special treatment

**Required Information:**

| Danica Watson | Danica Watson | 6907 Saddle CT |
|---|---|---|
| Property Owner's Signature | Printed Name | Property Address (**No P. O. Boxes**) |

If any further information is desired, please contact the Planning Division, at 685-7400.
Si ud. desea más información en Español sobre este caso, llame al : 685-7400.

Notices Mailed: 18
Date Mailed: October 6, 2023
Case Number: E-23-0108
Case Name: 6800 N Lone Star
LO Planner's Initials

Jeff Fisher, AICP
Planning Division Manager
Department of Development Services

The meeting facility is accessible to disabled persons. A wheelchair entry ramp is located at the southeast entrance to City Hall. A parking space designated for use by disabled persons is available near the southeast entrance doors. Any disabled person needing special accommodations or hearing impaired persons wishing to have an interpreter should request services through the Administrative Services Department at least 48 hours prior to the scheduled meeting by contacting Compliance Coordinator for the City of Midland at (432) 685-7251. If communication via TTD is required, please call 1-800-735-2989.

# City Council Meeting

**Item Number:** 44

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Cristina Odenborg Burns, Director of Development Services

**Subject:** AN ORDINANCE AMENDING TITLE XI, "PLANNING AND DEVELOPMENT", CHAPTER XI, "AIRPORT HEIGHT HAZARD AND COMPATIBLE LAND USE ZONING," OF THE CITY CODE OF MIDLAND, TEXAS, SO AS TO REPLACE THE MIDLAND INTERNATIONAL AIRPORT COMPATIBLE LAND USE ZONING MAP DATED JUNE 2014 WITH THE REVISED MIDLAND INTERNATIONAL AIRPORT COMPATIBLE LAND USE ZONING MAP; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DISTRICT 4) (DEVELOPMENT SERVICES)

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**Purpose:**

Consider a city-initiated request to amend Title XI, "Planning and Development", Chapter 11, "Airport Height Hazard and Compatible Land Use Zoning," of the City Code of Midland, Texas so as to replace the Midland International Airport Compatible Land Use Zoning Map dated June 2014 with the revised Midland International Air and Space Port compatible land use zoning map.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

The revised land use zoning map will allow for additional economic growth in the area northeast of Midland International Airport.

**Discussion:**

In 2014, the City of Midland received an FAA Part 420 Spaceport License. As part of the licensing process, the City undertook an evaluation to identify the areas near MAF that needed to be protected for incompatible land use for both the safety of the general public and the plans for the development of the spaceport; this resulted in the current Airport Overlay Zone 4 (AOZ4) compatible land use zoning. This was completed in August 2014 when the Council passed Ordinance No. 9302 to establish the AOZ4.

Over the last ten years, the City has experienced considerable economic growth, leading to a population increase of over 30%. To accommodate future growth, modifications to the AOZ4 must be considered. The City should aim to facilitate both a thriving local economy and population through thoughtful planning and development policies. By examining potential launch and reentry flight paths, as well as the City's economic growth plans, an adjustment has been proposed for the AOZ4. Removing the northeast section, where future development is anticipated, while keeping the more frequently used southeast leg will maintain launch and reentry capabilities for runways 10/28 and 16R/34L. The licensed northeast departure trajectory would be discontinued to accommodate community expansion.

**Attachments:**

Revised Land Use Zoning Map
Ordinance No. 9302



City Manager's Office

**ORDINANCE NO. _____**

**AN ORDINANCE AMENDING TITLE XI, "PLANNING AND DEVELOPMENT", CHAPTER XI, "AIRPORT HEIGHT HAZARD AND COMPATIBLE LAND USE ZONING," OF THE CITY CODE OF MIDLAND, TEXAS, SO AS TO REPLACE THE MIDLAND INTERNATIONAL AIRPORT COMPATIBLE LAND USE ZONING MAP DATED JUNE 2014 WITH THE REVISED MIDLAND INTERNATIONAL AIRPORT COMPATIBLE LAND USE ZONING MAP; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION**

**WHEREAS**, on September 15, 2014, the Federal Aviation Administration ("FAA") issued the City of Midland Launch Site Operator License No. LSO 14-015, and accompanying License Order No. LSO 14-015, to operate Midland International Air and Space Port (the "Spaceport") as a launch site for reusable launch vehicles, the first such license and order to be issued in the United States of America; and

**WHEREAS**, on September 12, 2019, the FAA issued the City of Midland License Order No. LSO 14-015A (Rev 1), modifying License No. 14-015 to extend the term of the license for five (5) years from September 15, 2019, the effective date of the order; and

**WHEREAS**, in recognition of the importance of the Spaceport to the economic vitality of the City of Midland and the surrounding Permian Basin region, the City of Midland invested considerable public resources in the Spaceport, including in its pursuit of LSO 14-015; and

**WHEREAS**, on August 12, 2014, in order to protect the public investment in the Spaceport, the City of Midland passed Ordinance No. 9302 to establish Airport Overlay Zone 4 ("*AOZ-4*"), which is depicted on the Midland International Airport Compatible Land Use Zoning Map dated June 2014, to protect the Spaceport from hazards and incompatible land uses that could endanger either flights in the air or people on the ground relating to the launch site operations; and

**WHEREAS**, since the passage of Ordinance No. 9302, the planned launch site operations at the Spaceport have changed; and

**WHEREAS**, the original plan for launch site operations at the Spaceport included horizontal take-off and landing of reusable launch vehicles utilizing runway 16R/34L at either a northern or southern trajectory; and

**WHEREAS**, such horizontal take-offs and landings never took place, and the City of Midland no longer plans on future launches involving horizontal take-off and landings utilizing runway 16R/34L in a northern trajectory; future take-off and landings, horizontal or otherwise, for launch site operations will take place on runway 10/28 or runway 16R/34L in a southern trajectory, or will not involve horizontal take-off and landings or reusable launch site vehicles at all and will utilize other means of landing and take-off (such as vertical or aerial launches); and

**WHEREAS**, because runway 16R/34L will no longer be used for horizontal take-off and landing of reusable launch vehicles in a northern trajectory, the footprint of AOZ-4 as depicted on the Midland International Airport Compatible Land Use Zoning Map dated June 2014, no longer needs to extend as far northeast as originally established; and

**WHEREAS**, to better reflect the future launch site operations at the Spaceport, the City of Midland desires to modify AOZ-4 by replacing the Midland International Airport Compatible Use Zoning AOZ-4 Map dated June 2014 with the Midland International Airport Compatible Use Zoning AOZ-4 Map dated April 2023 to reflect the changes in planned launch site operations; and

**WHEREAS**, the City Council finds that all procedural requirements necessary for the adoption of this ordinance have been complied with and satisfied; and

**WHEREAS**, the City Council finds it to be in the public interest to make certain amendments to Title XI, Chapter 11, of the City Code of Midland Texas, so as to replace the Midland International Airport Compatible Use Zoning AOZ-4 Map dated June 2014 with the Midland International Airport Compatible Use Zoning AOZ-4 Map dated April 2023;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the findings and recitals contained in the preamble of this ordinance are hereby adopted, approved, and made a part of this ordinance for all purposes.

**SECTION TWO.** That Midland Municipal Code, Title XI, "Planning and Development," Chapter 11, "Airport Height Hazard and Compatible Land Use Zoning," Section 2, "Purpose," is hereby amended to read in its entirety as follows:

**11-11-2. - Purpose.**

To ensure compliance with federal law and regulations governing public safety and compatible land uses around commercial airports and around authorized launch sites for reusable launch vehicles; to regulate and restrict the height of Structures and objects of natural growth; and otherwise to regulate the use of property in the vicinity of the Midland International Airport or Midland Airpark by creating appropriate zones and establishing the boundaries thereof; to protect public safety by restricting incompatible land uses in the vicinity of Midland International Airport or Midland Airpark by creating appropriate zones and establishing the boundaries thereof; to provide for restrictions on use and development of property within such zones and the enforcement of such restrictions; to define certain terms used herein; to refer to the Midland International Airport Hazard Zoning Map, Midland International Airport Compatible Land Use Zoning AOZ-1, AOZ-2 and AOZ-3 Map, the Midland Airpark Hazard Zoning Map, and the Midland Airpark Compatible Land Use Zoning Map, all dated June 2014, and the Midland International Airport Compatible Land Use Zoning AOZ-4 Map dated April 2023, which are collectively incorporated by reference and made a part of this Chapter as if fully set forth herein; to provide for a board of adjustment; and to impose penalties.

**SECTION THREE.** That Midland Municipal Code, Title XI, "Planning and Development," Chapter 11, "Airport Height Hazard and Compatible Land Use Zoning," Section 8, "Airport Overlay Zones," Subsection A, "Creation of Airport Overlay Zones (AOZs)," is hereby amended to read in its entirety as follows:

**11-11-8. Airport Overlay Zones.**

A. Creation of Airport Overlay Zones (AOZs): In order to carry out the provisions of this Chapter, there are hereby created and established certain Airport Overlay Zones for the purposes of regulating and promoting uses of land within each zone that do not endanger the health, safety, and general welfare of the owners, occupants, or users of the land because of noise or vibrations or the risk of personal injury or property damage created by the operations of the Airport, including the taking off and landing of Aircraft. Within the Controlled Compatible Land Use Areas around Midland International Airport and the Midland Airpark, four AOZs are defined in this Section 11-11-8. These zones are shown on the Midland Airpark Compatible Land Use Zoning Map and the Midland International Airport Compatible Land Use Zoning AOZ-1, AOZ-2 and AOZ-3 Map, each dated June 2014, and the Midland International Airport

Compatible Land Use Zoning AOZ-4 Map dated April 2023. All four zones are used at Midland International Airport, while only three zones are used at the Midland Airpark. The AOZs are hereby defined and established as follows:

(1) Airport Overlay Zone 1 (AOZ-1): That portion of the controlled compatible land use area between the 65 and 70 DNL contour lines.

(2) Airport Overlay Zone 2 (AOZ-2): That portion of the controlled compatible land use area between the 70 and 75 DNL contour lines.

(3) Airport Overlay Zone 3 (AOZ-3): That portion of the controlled compatible land use area between the 75 and 80 DNL contour lines.

(4) Airport Overlay Zone 4 (AOZ-4): That portion of the controlled compatible land use area designated as launch site safety corridors.

**SECTION FOUR.** That the Midland International Airport Compatible Land Use Zoning AOZ-4 Map dated June 2014 is hereby stricken and replaced with the Midland International Airport Compatible Land Use Zoning AOZ-4 Map dated April 2023, which is attached hereto as Exhibit A and incorporated herein for all purposes.

**SECTION FIVE.** That the definitions given in Section 11-11-4 of the City Code of the City of Midland, Texas, shall be applicable to such of those terms as are used herein.

**SECTION SIX.** That the provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION SEVEN.** That if any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION EIGHT.** That the penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code

of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION NINE.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the day of _____, A.D., 2023; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2023, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____day of _____, A.D., 2023.

_____
Lori Merritt Blong, Mayor

ATTEST:

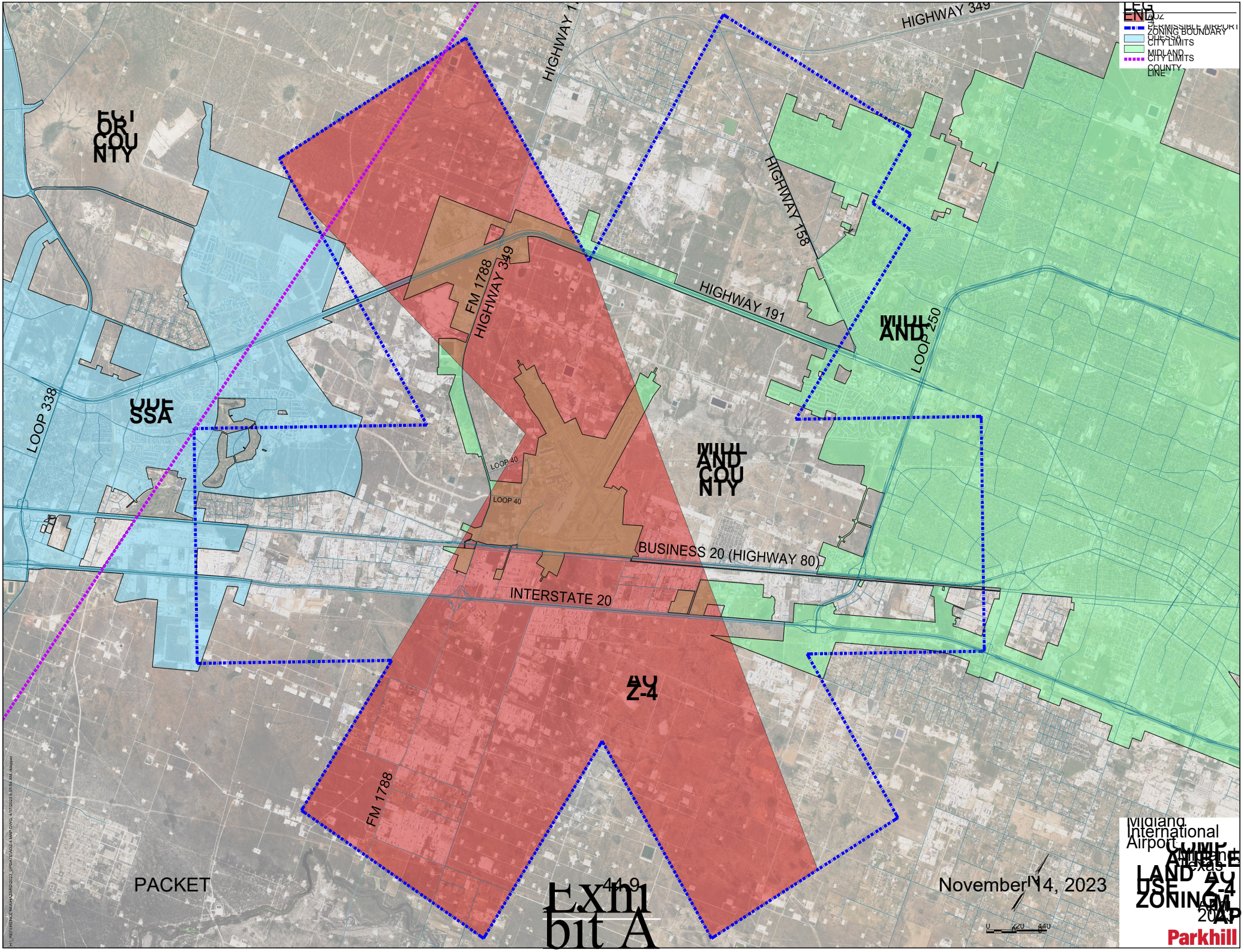
_____
Marcia Bentley-German City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Justine Ruff, Director of Airports

APPROVED AS TO FORM ONLY:

_____
John Ohnemiller, City Attorney


LEGEND
PERMISSIBLE AIRPORT ZONING BOUNDARY
CITY LIMITS
MIDLAND CITY LIMITS
COUNTY LINE
HIGHWAY 349
HIGHWAY 158
HIGHWAY 191
LOOP 250
FM 1788
HIGHWAY 349
LOOP 338
LOOP 40
LOOP 40
BUSINESS 20 (HIGHWAY 80)
INTERSTATE 20
FM 1788
Z-4
Midland International Airport
LAND USE ZONING MAP
Parkhill
November 14, 2023
PACKET
449
Exhibit A

**ORDINANCE NO.** 9302

**AN ORDINANCE AMENDING TITLE XI, "PLANNING AND DEVELOPMENT", OF THE CITY CODE OF MIDLAND, TEXAS, SO AS TO DELETE CHAPTER 11 AND REPLACE SAID CHAPTER WITH A NEW CHAPTER 11, "AIRPORT HEIGHT HAZARD AND COMPATIBLE LAND USE ZONING", IN ORDER TO PROVIDE FOR THE PUBLIC HEALTH, PUBLIC SAFETY AND GENERAL WELFARE BY PROHIBITING AIRPORT HAZARDS WITHIN THE VICINITY OF MIDLAND INTERNATIONAL AIRPORT AND MIDLAND AIRPARK; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2000.00); AND ORDERING PUBLICATION**

**WHEREAS**, the City Council of the City of Midland, Texas finds that:

The economic vitality of the City of Midland and the surrounding Permian Basin region depends on the safe and financially sound operation of the Midland International Airport and Midland Airpark;

The City of Midland has invested considerable public resources in the Midland International Airport and Midland Airpark, including the pursuit of a license from the Federal Aviation Administration to operate Midland International Airport as a launch site for reusable launch vehicles;

The economic vitality of the City of Midland and the surrounding Permian Basin region will benefit greatly from the City securing and retaining a permit to operate a launch site at the Midland International Airport;

In order to protect the public investment in the Airport and Airpark, the City of Midland desires to protect the Airport and Airpark from hazards and incompatible land uses that could endanger either flights in the air or people on the ground;

An airport hazard endangers the lives and property of users of the airport and of occupants of land in the vicinity of the airport;

An airport hazard that is an obstruction reduces the size of the area available for the landing, taking off, and maneuvering of aircraft, tending to destroy or impair the utility of the airport and the public investment in the airport;

The creation of an airport hazard is a public nuisance and an injury to the community served by the airport affected by the hazard;

The creation of an airport hazard should be prevented, to the extent legally possible, by the exercise of the police power without compensation;

The prevention of the creation of an airport hazard and the elimination, the removal, the alteration, the mitigation, or the marking and lighting of an airport hazard are public purposes for which a political subdivision may raise and spend public funds and acquire land or interest in land;

Land uses adjacent to, or near, an airport that endanger the health, safety, or welfare of the owners, occupants, or users of the land because of the risk of personal injury or property damage created by the operations of the airport or because of the levels of noise or vibrations created by the operations of the airport are incompatible with operation of the airport and tend to destroy or impair the utility of the public investment in the airport;

Land uses that are incompatible with the operation of an airport should be prevented, to the extent legally possible, by the exercise of the police power;

It is in the public interest to adopt uniform hazard and compatible land use zoning regulations for the Midland International Airport and the Midland Airpark; and

**WHEREAS**, federal law, federal policy, and Federal Aviation Administration regulations require that a launch site for reusable launch vehicles must be operated in a manner that is safe for the public on the ground and Federal Aviation Administration regulations specify the maximum acceptable risk to the collective members of the public exposed to hazards from operations; and

**WHEREAS**, federal law, federal policy, Federal Aviation Administration regulations, and the federal grant assurances require that airport owners, such as the City of Midland, take appropriate action, including the adoption of zoning laws, to restrict the use of land adjacent to or in the vicinity of an airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft; and

**WHEREAS**, Texas Local Government Code Title 7, Chapter 241 authorizes the City of Midland to implement by ordinance or resolution any federal law or federal rules controlling the use of land located adjacent to, or in the immediate vicinity of, an airport; and

**WHEREAS**, Texas Local Government Code Title 7, Chapter 241 authorizes the City of Midland to impose zoning restrictions within a defined area of land around an airport but outside the boundaries of the City of Midland; and

**WHEREAS**, the City of Midland adopted airport height hazard and land use zoning regulations by ordinance in 2007, and now re-adopts and amends those regulations to address the expansion of uses at Midland International Airport to include the launch and landing of reusable launch vehicles; and

**WHEREAS**, the City Council finds that the City of Midland benefits from the use of the Midland International Airport and Midland Airpark; and

**WHEREAS**, the City of Midland permits the Midland International Airport and Midland Airpark to be used by the public to an extent that fulfills an essential community purpose;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the findings and recitals contained in the preamble of this Ordinance are hereby adopted and made a part of this Ordinance.

**SECTION TWO.** That the Midland Municipal Code, Title XI, Chapter 11 is hereby deleted in its entirety and shall be replaced by a new Title XI, Chapter 11, "Airport Height Hazard and Compatible Land Use Zoning," which shall read as follows:

## CHAPTER 11 AIRPORT HEIGHT HAZARD AND COMPATIBLE LAND USE ZONING

### 11-11-1. Citation

This Chapter shall be known and may be cited as the Airport Height Hazard and Land Use Zoning Regulations for Midland International Airport and Midland Airpark of the City of Midland Municipal Code.

**11-11-2. Purpose**

To ensure compliance with federal law and regulations governing public safety and compatible land uses around commercial airports and around authorized launch sites for reusable launch vehicles; to regulate and restrict the height of Structures and objects of natural growth; and otherwise to regulate the use of property in the vicinity of the Midland International Airport or Midland Airpark by creating appropriate zones and establishing the boundaries thereof; to protect public safety by restricting incompatible land uses in the vicinity of Midland International Airport or Midland Airpark by creating appropriate zones and establishing the boundaries thereof; to provide for restrictions on use and development of property within such zones and the enforcement of such restrictions; to define certain terms used herein; to refer to the Midland International Airport Hazard Zoning Map, the Midland International Airport Compatible Land Use Zoning Map, the Midland Airpark Hazard Zoning Map, and the Midland Airpark Compatible Land Use Zoning Map, all dated June 2014, and incorporated in and made a part of this Chapter; to provide for a board of adjustment; and to impose penalties.

**11-11-3 Authority**

This Chapter is adopted pursuant to the authority conferred by the Airport Zoning Act, as codified in Texas Local Government Code, §§241.001 et seq. The City of Midland operates the Midland International Airport and Midland Airpark for public use such that the Airport and Airpark each fulfills an essential community purpose.

**11-11-4. Definitions**

As used in this Chapter, unless the context otherwise requires, capitalized terms shall have the following meaning:

A. Administrative Agency: The appropriate person or office of a political subdivision which is responsible for the administration and enforcement of the regulations prescribed herein. The Administrative Agency is set forth in Section 11-11-5 of this Chapter.

B. Aircraft: Any device that is used or intended to be used for flight in the air, so long as such device is permitted to operate at an airport certificated by the Federal Aviation Administration under 14 Code of Federal Regulations Part 139 or at a site licensed by the Federal Aviation Administration to operate as a launch site under 14 Code of Federal Regulations Part 420.

C. Airport: The Midland International Airport, Midland, Texas or Midland Airpark, Midland, Texas; including the ultimate development of such facilities, and all lands, buildings and other improvements owned, controlled, leased, or operated and maintained by the City of Midland appurtenant thereto.

D. Airport Elevation: The established elevation of the highest point on the runway, either existing or planned, at the Airport measured in feet above mean sea level (MSL). The Airport Elevation of the Midland International Airport is 2,872 feet above MSL and the Airport Elevation of the Midland Airpark is 2,804 feet above MSL.

E. Airport Hazard: Any structure or object of natural growth that obstructs the air space required for the taking off, landing, and flight of Aircraft or that interferes with visual, radar, radio, or other systems for tracking, acquiring data relating to, monitoring, or controlling Aircraft.

F. Airport Zoning Commission: The City of Midland Planning and Zoning Commission.

G. Approach Surface: A surface longitudinally centered on the extended runway centerline, extending outward and upward from each end of the primary surface and at the same slope as the approach zone height limitation slope set forth in Section 11-11-7 of this Chapter. In plan, the perimeter of the approach surface coincides with the perimeter of the approach zone.

H. Approach, Conical, Horizontal, and Transitional Zones: The zones set forth in Section 11-11-6 of this Chapter.

I. Board of Adjustment: A board so designated by this Chapter as provided in the Texas Airport Zoning Act, codified at Texas Local Government Code §241.032. Provisions for the Board of Adjustment are set forth in Section 11-11-12 of this Chapter.

J. Compatible Land Use: Any use of land adjacent to or in the immediate vicinity of the Airport that does not endanger the health, safety, or welfare of the owners, occupants, or users of the land because of levels of noise or vibrations or the risk of personal injury or property damage created by the operations of the Airport, including the taking off and landing of Aircraft.

K. Conical Surface: A surface extending outward and upward from the periphery of the horizontal surface at a slope of twenty (20) feet horizontally for each one (1) foot vertically for a horizontal distance of four thousand (4,000) feet.

L. Controlled Compatible Land Use Area: An area of land located outside the Airport boundaries and within a rectangle bounded by lines located no farther than 1½ statute miles from the centerline of an instrument or Primary Runway and lines located no farther than 5 statute miles from each end of the paved surface of an instrument or Primary Runway.

M. DNL (Yearly Day-Night Average Sound Level): The 24-hour average sound level, in decibels, for the period from midnight to midnight obtained after the addition of 10 decibels for the periods between midnight and 7 AM and between 10 PM and midnight (local time) as averaged over a span of (one) 1 year. A mathematical definition of DNL may be found in Title 14 Code of Federal Regulations, Section 150.201.

N. Hazard to Air Navigation: An obstruction or use of land determined to have a substantial adverse effect on the safe and efficient utilization of navigable airspace.

O. Height: For the purpose of determining the height limits in all zones set forth in this Chapter and shown on the hazard zoning map, the datum shall be height above mean sea level (MSL) elevation as measured in feet.

P. Horizontal Surface: A horizontal plane one hundred fifty (150) feet above the established Airport Elevation.

Q. Instrument Runway: An existing or planned runway of at least three thousand two hundred (3200) feet in length for which there is an existing or planned instrument landing procedure published by the Federal Aviation Administration or a defense agency of the federal government.

R. Noise Level Reduction (NLR): The amount of reduction in noise for any given point as achieved through the incorporation of noise attenuation measures incorporated into the design and construction of buildings. These reductions may be incorporated during initial construction or as additional construction for existing buildings.

S. Nonconforming Use, Structure, or Tree: Any structure, tree, or use of land which is inconsistent with the provisions of this Chapter and which is existing as of the effective date of this Chapter. This definition is for purposes of this Chapter only. The definition of nonconforming use found at Section 11-1-11 of this Code does not apply to areas zoned under the authority of the Texas Zoning Airport Zoning Act, which are outside the territorial jurisdiction of the City of Midland.

T. Nonprecision Instrument Runway: Runway(s) having an instrument approach procedure utilizing air navigation facilities with only horizontal guidance or area type navigation equipment, for which nonprecision instrument approach procedures have been planned or approved.

U. Obstruction: Any structure, tree, or other object, including a mobile object, which exceeds a limiting height set forth in Section 11-11-7 of this Chapter or is an Airport Hazard.

V. Other than Utility Runway: A runway designed for and intended to be used by propeller driven aircraft of more than twelve thousand five hundred (12,500) pounds maximum gross weight and jet powered aircraft.

W. Person: An individual, firm, partnership, corporation, company, association, joint stock association, or body politic and includes a trustee, receiver, assignee, administrator, executor, guardian, or other representative.

X. Precision Instrument Runway: Runway(s) having an existing or planned instrument approach procedure utilizing an Instrument Landing System (ILS) or other air navigation facilities or equipment which provides both horizontal and vertical guidance. This also includes a runway for which a precision instrument approach procedure has been approved or planned.

Y. Primary Runway: An existing or paved runway of at least three thousand two hundred (3200) feet in length as shown on the official Airport Layout Plan for the Airport and on which a majority of the approaches to and departures from the Airport occur.

Z. Primary Surface: A surface longitudinally centered on a Runway. When the runway has a specially prepared hard surface, the Primary Surface extends two hundred (200) feet beyond each ultimate end of that runway. The width of the Primary Surface of a runway will be that width prescribed in the Federal Aviation Regulations (FAR) at Title 14, Code of Federal Regulations Part 77, for the most precise approach existing or planned for either end of that runway. The elevation of any point on the primary surface is the same as the nearest point on the existing or ultimate runway centerline.

The width of a Primary Surface for other than utility runway is one thousand (1,000) feet for Precision Instrument Runways and one thousand (1,000) feet for a Nonprecision Instrument Runway having a nonprecision instrument approach with visibility minimums as low as three-fourths (3/4) of a statute mile.

AA. Runway: A defined area on the Airport prepared for the landing and taking off of Aircraft along its length.

BB. Structure: An object, including a mobile object, constructed or installed by one or more persons including, but not limited to, buildings, towers, cranes, smokestacks, poles, earth formations, overhead transmission lines, and traverse ways. Traverse ways are considered to be the heights set forth in Title 14 Code of Federal Regulations, Part 77.23.

CC. Transitional Surfaces: Surfaces extending perpendicular to the runway centerline and the extended runway centerline outward from the edges of the Primary Surface and the Approach Surfaces at a slope of seven (7) feet horizontally for each one (1) foot vertically to where they intersect the horizontal surface. Transitional Surfaces for those portions of the precision Approach Surface which extend through and beyond the limits of the Conical Surface extend at a slope of seven (7) feet horizontally for each one (1) foot vertically for a distance of five thousand (5,000) feet measured horizontally from either edge of the Approach Surface and perpendicular to the extended runway centerline.

**11-11-5. Administrative Agency**

It shall be the duty of the office of Code Administration Division to administer and enforce the regulations prescribed herein. The Code Administration Division is hereby designated as the Administrative Agency of this Chapter.

**11-11-6. Height Hazard Zones**

In order to carry out the provisions of this Chapter, there are hereby created and established certain geographic zones which include all of the land lying beneath the Approach Surfaces, Conical Surface, Horizontal Surface, and Transitional Surfaces as they apply to the Airport. These surfaces are shown on the Midland International Airport Hazard Zoning Map and the Midland Airpark Hazard Zoning Map, each consisting of one (1) sheet, dated June 2014, which is hereby attached to this Chapter and made a part hereof. An area located in more than one of the following zones is considered to be only in the zone with the more restrictive Height limitation. The various zones are hereby established and defined as follows:

A. Approach Zones:

Midland International Airport

Runway 16R/34L and Runway 10/28 (Precision Instrument Runways) Approach zones are hereby established beneath the Approach Surfaces at each end of Runway 16R/34L and Runway 10/28 at Midland International Airport for precision instrument landings and takeoffs. The Approach Surface shall have an inner edge width of one thousand (1,000) feet, which coincides with the width of the Primary Surface, at a distance of two hundred (200) feet beyond each Runway end, widening thereafter uniformly to a width of sixteen thousand (16,000) feet at a horizontal distance of fifty thousand (50,000) feet beyond each end of the Primary Surface. The centerline of the Approach Surface is the continuation of the centerline of the Runway.

Runway 16L/34R (Nonprecision Instrument Runways visibility minimums as low as ¾ mile) Approach zones are hereby established beneath the Approach Surfaces

at each end of Runway 16L/34R at Midland International Airport for nonprecision instrument landings and takeoffs. The Approach Surface shall have an inner edge width of one thousand (1,000) feet, which coincides with the width of the Primary Surface, at a distance of two hundred (200) feet beyond each Runway end, widening thereafter uniformly to a width of four thousand (4,000) feet at a horizontal distance of ten thousand (10,000) feet beyond each end of the Primary Surface. The centerline of the Approach Surface is the continuation of the centerline of the Runway.

Runway 4/22 (Nonprecision Instrument Runways visibility minimums greater than ¾ mile) Approach Zones are hereby established beneath the Approach Surfaces at each end of Runway 4/22 at Midland International Airport for nonprecision instrument landings and takeoffs. The Approach Surface shall have an inner edge width of five hundred (500) feet, which coincides with the width of the Primary Surface, at a distance of two hundred (200) feet beyond each Runway end, widening thereafter uniformly to a width of three thousand five hundred (3,500) feet at a horizontal distance of ten thousand (10,000) feet beyond each end of the Primary Surface. The centerline of the Approach Surface is the continuation of the centerline of the Runway.

Midland Airpark

Runway 7/25 and Runway 16/34 (Nonprecision Instrument Runways visibility minimums greater than ¾ mile) Approach Zones are hereby established beneath the Approach Surfaces at each end of Runway 7/25 and Runway 16/34 at Midland Airpark for nonprecision instrument landings and takeoffs. The Approach Surface shall have an inner edge width of five hundred (500) feet, which coincides with the width of the Primary Surface, at a distance of two-hundred (200) feet beyond each Runway end, widening thereafter uniformly to a width of three thousand five hundred (3,500) feet at a horizontal distance of ten thousand (10,000) feet beyond each end of the Primary Surface. The centerline of the Approach Surface is the continuation of the centerline of the Runway.

B. Conical Zone: A Conical Zone is hereby established beneath the Conical Surface at the Airport which extends outward and upward from the periphery of the Horizontal Surface at a slope of 20:1 for a horizontal distance of four thousand (4,000) feet.

C. Horizontal Zone: A Horizontal Zone is hereby established beneath the Horizontal Surface at the Airport which is a plane one hundred fifty (150) feet above the established Airport Elevation, the perimeter of which is constructed by swinging arcs of ten thousand (10,000) feet radii from the center of each end of the Primary Surface and connecting the adjacent arcs by lines tangent to those arcs.

D. Transitional Zones: Transitional Zones are hereby established beneath the Transitional Surfaces at the Airport. Transitional Surfaces, symmetrically located on either side of the Runway, have variable widths as shown on the Midland International and Midland Airpark Airport Hazard Zoning Maps. Transitional Surfaces extend outward perpendicular to the Runway centerline and the extended Runway centerline from the periphery of the Primary Surface and the Approach Surfaces at a slope of 7:1 to where they intersect the Horizontal Surface. Where the Precision Instrument Runway Approach Surface projects through and beyond the Conical Surface, there are hereby established Transitional Zones beginning at the sides of and at the same elevation as the Approach Surface and extending for a horizontal distance of five thousand (5,000) feet as measured perpendicular to the extended Runway centerline.

**11-11-7. Height Limitations in Height Hazard Zones**

Except as otherwise provided in Section 11-11-11 of this Chapter, no Structure shall be erected, altered, or replaced and no tree shall be allowed to grow in any Height Hazard Zone as defined in Section 11-11-6 to a Height in excess of the applicable Height limitations set forth in this Section 11-11-7 The applicable Height limitations for each Height Hazard Zone are as follows:

A. Approach Zones:

Midland International Airport

Runway 16R/34L and Runway 10/28 (Precision Instrument Runways): Slope one (1) foot in Height for each fifty (50) feet in horizontal distance beginning at the end of and at the same elevation as the Primary Surface and extending to a point ten thousand (10,000) feet from the end of the Primary Surface, and then rising one (1) foot in Height for each forty (40) feet in horizontal distance for an additional forty thousand (40,000) feet from the end of the Primary Surface.
Runway 16L/34R and Runway 4/22 (Nonprecision Instrument Runways): Slope one (1) foot in Height for each thirty-four (34) feet in horizontal distance beginning at the end of and at the same elevation as the Primary Surface and extending to a point ten thousand (10,000) feet from the end of the Primary Surface.

Midland Airpark

Runway 7/25 and Runway 16/34 (Nonprecision Instrument Runways): Slope one (1) foot in Height for each thirty four (34) feet in horizontal distance beginning at the end of and at the same elevation as the Primary Surface and extending to a point ten thousand (10,000) feet from the end of the Primary Surface.

B. Conical Zone: Slopes one (1) foot in Height for each twenty (20) feet in horizontal distance beginning at the periphery of the Horizontal Zone and at one hundred fifty (150) feet above the Airport Elevation and extending to a Height of three hundred fifty (350) feet above the Airport Elevation.

C. Horizontal Zone: Established at one hundred fifty (150) feet above the Airport Elevation.

D. Transitional Zones: Slope one (1) foot in Height for each seven (7) feet in horizontal distance beginning at the sides of and at the same elevations as the Primary Surface and the Approach Surface, and extending to a Height of one hundred fifty (150) feet above the Airport Elevation. There are also established Height Limits sloping one (1) foot in Height for each seven (7) feet in horizontal distance beginning at the sides of and at the same elevation as the Approach Surface, and extending to where they intersect the Conical Surface. Where the Precision Instrument Runway Approach Zone projects beyond the Conical Zone, there are established Height Limits sloping one (1) foot in Height for each seven (7) feet in horizontal distance beginning at the sides of and at the same elevation as the Approach Surface, and extending a horizontal distance of five thousand (5,000) feet perpendicular to the extended Runway centerline.

E. Excepted Height Limitation: Nothing contained in this Chapter shall be construed as prohibiting the growth, construction or maintenance of any Structure or tree to a Height of up to fifty (50) feet above the natural surface of the land at its location.

## 11-11-8. Airport Overlay Zones

A. Creation of Airport Overlay Zones (AOZs): In order to carry out the provisions of this Chapter, there are hereby created and established certain Airport Overlay Zones for the purposes of regulating and promoting uses of land within each zone that do not endanger the health, safety, and general welfare of the owners, occupants, or users of the land because of noise or vibrations or the risk of personal injury or property damage created by the operations of the Airport, including the taking off and landing of Aircraft. Within the Controlled Compatible Land Use Areas around Midland International Airport and the Midland Airpark, four AOZs are defined in this Section 11-11-8. These zones are shown on the Midland International Airport Compatible Land Use Zoning Map and the Midland Airpark Compatible Land Use Zoning Map, dated June 2014. All four zones are used at Midland International Airport, while only three zones are used at the Midland Airpark. The AOZs are hereby defined and established as follows:

Airport Overlay Zone 1 (AOZ-1): that portion of the Controlled Compatible Land Use Area between the 65 and 70 DNL contour lines.

Airport Overlay Zone 2 (AOZ-2): that portion of the Controlled Compatible Land Use Area between the 70 and 75 DNL contour lines.

Airport Overlay Zone 3 (AOZ-3): that portion of the Controlled Compatible Land Use Area between the 75 and 80 DNL contour lines.

Airport Overlay Zone 4 (AOZ-4): that portion of the Controlled Compatible Land Use Area designated as launch site safety corridors.

B. Permitted Uses: All uses are permitted within each applicable AOZ that are permitted by other existing zoning ordinances except as prohibited or regulated by the zoning regulations in this Chapter. Where there is a conflict between the AOZ restrictions and other zoning ordinances or where there are no other existing zoning ordinances, the provisions of the AOZ shall prevail. Where there is a conflict between the restrictions in overlapping AOZs, the more restrictive provisions prevail.

C. Prohibited uses: Table 1 attached to this Chapter enumerates land uses that are prohibited or restricted within each AOZ.

## 11-11-9. Land Use Restrictions

Except as provided in Section 11-11-10 of this Chapter, no use may be made of land or water within the Controlled Compatible Land Use Area established by this Chapter in such a manner as to create electrical interference with navigational signals or radio communications between the Airport and Aircraft, make it difficult for pilots to distinguish between Airport lights and other lights, result in glare in the eyes of pilots using the Airport, impair visibility in the vicinity of the Airport, create potential bird strike hazards or wildlife attractants, or otherwise in any way endanger or interfere with the landing, taking off, or maneuvering of Aircraft intending to use the Airport.

## 11-11-10. Nonconforming Uses, Structures and Trees

A. Nonconforming Uses.

Nothing contained in this Chapter shall be construed as requiring changes in or interference with the continuance of any Nonconforming Use of land.

B. Nonconforming Structures.

Nothing contained in this Chapter shall be construed as to require the removal, lowering, or other change to any existing Nonconforming Structure or to require the lowering of any phases or elements of a multiphase Structure that received a determination of no hazard by the Federal Aviation Administration under 14 Code of Federal Regulations Part 77 before this Chapter was adopted, regardless of whether actual construction on the multiphase Structure has commenced.

A Nonconforming Structure that received a determination of no hazard by the Federal Aviation Administration under 14 C.F.R. Part 77 before this Chapter was adopted shall be considered in violation of this ordinance immediately upon expiration or revocation of the determination of no hazard by the Federal Aviation Administration unless the property owner of a Nonconforming Use applies for and receives a new determination of no hazard from the Federal Aviation Administration prior to the expiration of any previous determination.

Temporary Structures that received a determination of no hazard by the Federal Aviation Administration under 14 Code of Federal Regulations Part 77 before this Chapter was adopted will continue to be determined as not in violation of this ordinance as long as a determination of no hazard by the Federal Aviation Administration remains in effect.

C. Nonconforming Trees.

Nothing in this Chapter shall be construed as to require the removal, lowering, or other change to any Nonconforming Tree. However, any Nonconforming Tree which grows to a greater Height than it was as of the effective date of this Chapter is subject to the provisions of this Chapter as described in Section 11-11-7 herein above.

**11-11-11. Permits and Variances**

A. Permits.

(1) Any Person who desires to replace, rebuild, substantially change, or repair a Nonconforming Structure or replace or replant a Nonconforming Tree must apply for and receive a permit, and the permit shall be granted, provided such permit is otherwise consistent with this Chapter. However, no permit shall be granted which would allow the establishment of an Airport Hazard or allow a Nonconforming Structure or tree to exceed its original Height or become a greater Hazard to Air Navigation than it was at the time of the adoption of this Chapter, or which would allow the establishment of a Nonconforming Use. Applications for permits shall be submitted to and issued by the Administrative Agency.

(2) Any Person who desires to erect a new Structure or rebuild, replace, or enlarge an existing Structure or establish a new use or substantially change an existing use in AOZ-4 must apply for and receive a permit. A permit shall be granted unless the new Structure or the new use would be a Height Hazard or a prohibited land use as set forth in Sections 11-11-8, 11-11-9, and Table 1 of this Chapter or would otherwise violate this Chapter. Applications for permits shall be submitted to and issued by the Administrative Agency.

B. Variances.

(1) A Person who desires to use property in a manner inconsistent with this Chapter may apply to the Board of Adjustment for a variance.

(2) If the applicant for variance seeks to erect or alter a Structure or allow the growth of a tree which would exceed the Height limits contained in this Chapter, the application must be accompanied by a determination from the Federal Aviation Administration under 14 Code of Federal Regulations Part 77 that the proposed Structure or tree would not constitute a hazard to air navigation.

(3) The Board of Adjustment shall not issue a variance unless it shall first make findings and show in its minutes such facts and/or special conditions by which each of the following conditions listed below has been satisfied.

(a) A literal application or enforcement of the regulations will result in unnecessary hardship; and

(b) The granting of relief would:
(1) result in substantial justice being done;
(2) not be contrary to the public interest; and
(3) be in accordance with the spirit of the regulation and this Chapter.

In making its findings under (b)(2) and (b)(3) above, the Board shall consider whether the granting of relief would jeopardize public health and safety or otherwise result in the creation of an unacceptable safety risk as defined in 14 Code of Federal Regulations Parts 420 and 431; and shall consider whether the granting of relief would impair the ability of the City of Midland to accommodate Aircraft which use, or are projected to use, the Airport or Airpark.

The Board shall allow a variance from the regulations in this Chapter if the Board finds that all of the conditions above have been satisfied. If the Board finds that not all such conditions have been satisfied, its findings must state which conditions have not been satisfied.

(4) The Board of Adjustment shall consult with the Director of Airports before making its findings and shall set forth in its minutes the objections or concurrence of the Director of Airports to each such finding.

C. Requirements and Reasonable Conditions.

(1) Any permit granted may, at the discretion of the Administrative Agency, impose a requirement to install and maintain, at the expense of the permit applicant, any markers or lights as may be necessary to indicate to flyers the presence of an Airport Hazard.

(2) A permit for a new Structure in AOZ-4 will not be granted until the design and construction of the proposed Structure has been approved by the City Engineer of the City of Midland, after consultation with the Director of Airports.

(3) Any variance granted may, at the discretion of the Board of Adjustment, include any reasonable conditions as may be necessary to accomplish the purpose of this Chapter.

D. Exceptions.

No permit shall be required for any activity on property owned or leased by the City of Midland or its tenants, or the federal government.

**11-11-12. Board of Adjustment**

A. Pursuant to Texas Local Government Code § 241.032, the City of Midland Board of Adjustment is hereby designated as the Board of Adjustment for the purposes of this Chapter and shall have and exercise the following powers:

(1) to hear and, after consultation with the Director of Airports of the City of Midland, decide appeals from any order, requirement, decision, or determination made by the Administrative Agency in the administration or enforcement of this Chapter;

(2) to hear and, after consultation with the Director of Airports of the City of Midland, decide special exceptions to the terms of this Chapter when the board is required to do so; and

(3) to hear and, after consultation with the Director of Airports of the City of Midland, decide specific variances regarding the administration or enforcement of this Chapter.

B. The Board of Adjustment organization and operation shall be in accordance with Title XI Planning and Development, Chapter 1 Zoning, Section 11-1-12 of the City of Midland Municipal Code. If Section 11-1-12 conflicts with the provisions of this Chapter, this Chapter shall govern with respect to matters related to airport zoning regulations imposed pursuant to Texas Local Government Code §§ 241.001 et seq.

**11-11-13. Appeals**

A. A decision of the Administrative Agency made in its administration of this Chapter may be appealed to the Board of Adjustment by any Person who is aggrieved by the decision or by any taxpayer who is affected by the decision or by the governing body of a political subdivision that believes the decision is the result of an improper application of this Chapter.

B. All appeals hereunder must be taken in the time period and by the procedures set forth in Section 11-1-12 of this Code.

C. An appeal shall stay all proceedings in furtherance of the action appealed unless the Administrative Agency certifies in writing to the Board of Adjustment that by reason of the facts stated in the certificate, a stay would, in the opinion of the Administrative Agency, cause imminent peril to life or property. In such case, proceedings shall not be stayed except by order of the Board of Adjustment on notice to the Administrative Agency and on due cause shown.

D. In accordance with Section 11-1-12 of this Code, the Board of Adjustment shall fix a reasonable time for hearing appeals, give public notice and due notice to the parties in interest, and decide the same within a reasonable time. Upon the hearing, any party may appear in person, by agent, and/or by attorney.

E. The Board of Adjustment, after consultation with the Director of Airports of the City of Midland, whose objections or concurrence shall be set forth in writing, may reverse or affirm, in whole or in part, or modify the Administrative Agency's order, requirement, decision, or determination from which an appeal is taken and make the correct order, requirement, decision, or determination, and for this purpose the board of adjustment has the same authority as the Administrative Agency.

**11-11-14. Judicial Review**

Any Person aggrieved or any taxpayer who is affected by a decision of the Board of Adjustment, or a governing body of a political subdivision may present to a court of record a petition stating that the decision of the Board of Adjustment is illegal and specifying the grounds of the illegality as provided by and in accordance with the provisions of Texas Local Government Code, §241.041.

**11-11-15. Enforcement and Remedies**

The governing body of the City of Midland, Texas may institute in a court of competent jurisdiction an action to prevent, restrain, correct, or abate any violation of this Chapter or of any order or ruling made in connection with their administration or enforcement including, but not limited to, an action for injunctive relief.

**11-11-16. Penalties**

Each violation of this Chapter or of any order or ruling promulgated hereunder shall constitute a misdemeanor and upon conviction shall be punishable by a fine of not more than $2,000 and each day a violation continues to exist shall constitute a separate offense.

**11-11-17. Conflicting Regulations**

Where there exists a conflict between any of the regulations or limitations prescribed herein and any other regulation applicable to the same area, whether the conflict be with respect to the Height of Structures or trees, the use of land, or any other matter, the more stringent limitation or requirement shall control.

**11-11-18. Severability**

If any of the provisions of this Chapter or the application thereof to any Person or circumstance is held invalid, such invalidity shall not affect other provisions or application of this Chapter which can be given effect without the invalid provision or application and to this end, the provisions of this Chapter are declared to be severable.

**11-11-19. Adherence with State Laws**

Any actions brought forth by any Person or land owner as a result of the administration, enforcement, or the contesting of this Chapter will be in accordance with the provisions of Texas Local Government Code, §§241.001 et seq and other applicable state laws.

**11-11-20. Effective Date**

Whereas, the immediate operation of the provisions of this Chapter is necessary for the preservation of the public health, safety, and general welfare, an emergency is hereby declared to exist and this Chapter shall be in full force and effect from and after their adoption by the City of Midland.

**SECTION THREE.** The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION FOUR.** If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION FIVE.** The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION SIX.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the 22nd day of July, A.D., 2014; and passed to second reading on motion of Council member Love, seconded by Council member Lacy, by the following vote:

Council members voting "AYE": Love, Morales, Dufford, Lacy and Robnett

Council members voting "NAY": None

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member Love, seconded by Council

member Lacy, on the 12th day of August, A.D., 2014, at a regular meeting of the City Council:

Council members voting "AYE": Hotchkiss, Love, Sparks, Morales, Dufford, Lacy, Robnett

Council members voting "NAY": None

PASSED AND APPROVED THIS 12th day of August, A.D., 2014.

Jerry F. Morales, Mayor

ATTEST:

Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

Marv Esterly, Director of Airports

APPROVED ONLY AS TO FORM:

Keith Stretcher, City Attorney

# Table 1 – Prohibited Land Uses

| Land Use | Airport Overlay Zones | | | |
|---|---|---|---|---|
| | Sound Level in DNL | | | Launch Safety Corridors |
| | AOZ-1 65-70 DNL | AOZ-2 70-75 DNL | AOZ-3 75-80 DNL | AOZ-4 |
| **Residential** | | | | |
| Residential, other than mobile homes and transient lodgings | N(1) | N(1) | N | N |
| Mobile home parks | N | N | N | N |
| Transient lodgings | N(1) | N(1) | N(1) | N |
| | | | | |
| **Public Use** | | | | |
| Schools | N(1) | N(1) | N | N |
| Hospitals and nursing homes | 25 | 30 | N | N |
| Churches, auditoriums and concert halls | 25 | 30 | N | N |
| Governmental services | Y | 25 | 30 | Y(9) |
| Transportation | Y | Y(2) | Y(3) | Y(9) |
| Parking | Y | Y(2) | Y(3) | Y(9) |
| | | | | |
| **Commercial Use** | | | | |
| Offices, business and professional | Y | 25 | 30 | Y(9) |
| Wholesale and retail-building materials, hardware and farm equipment | Y | Y(2) | Y(3) | Y(9) |
| Retail trade – general | Y | 25 | 30 | N |
| Utilities | Y | Y(2) | Y(3) | Y |
| Communication | Y | 25 | 30 | Y |
| | | | | |
| **Manufacturing and Production** | | | | |
| Manufacturing – general | Y | Y(2) | Y(3) | Y(9) |
| Photographic and optical | Y | 25 | 30 | Y(9) |
| Agriculture (except livestock) and forestry | Y(6) | Y(7) | Y(8) | Y |
| Livestock farming and breeding | Y(6) | Y(7) | N | Y |
| Mining and fishing, resource production and extraction | Y | Y | Y | Y |
| | | | | |
| **Recreational** | | | | |
| Outdoor sports arenas and spectator sports | Y(5) | Y(5) | N | N |
| Outdoor music shells, amphitheaters | N | N | N | N |
| Nature exhibits and zoos | Y | N | N | N |
| Amusements, parks, resorts and camps | Y | Y | N | N |
| Golf courses, riding stables, and water recreation | Y | 25 | 30 | N |

Numbers in parentheses refer to notes.

KEY TO TABLE 1

Y (Yes) - Land Use and related structures compatible without restrictions or with restrictions as noted.

N (No) - Land Use and related structures are not compatible and should be prohibited.

NLR - Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.

25, 30 or 35 - Land Use and related structures generally compatible; measures to achieve NLR of 25, 30 or 35 dB must be incorporated into design and construction of structure.

# Table 1 – Prohibited Land Uses

(1) Where the community determines that *residential or school uses must* be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB to 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.

(2) Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.

(3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of *portions of these buildings* where the public is received, office areas, noise sensitive areas or where the normal noise level is low.

(4) Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.

(5) Land use compatible provided that special sound reinforcement systems are installed.

(6) Residential buildings require an NLR of 25.

(7) Residential buildings require an NLR of 30.

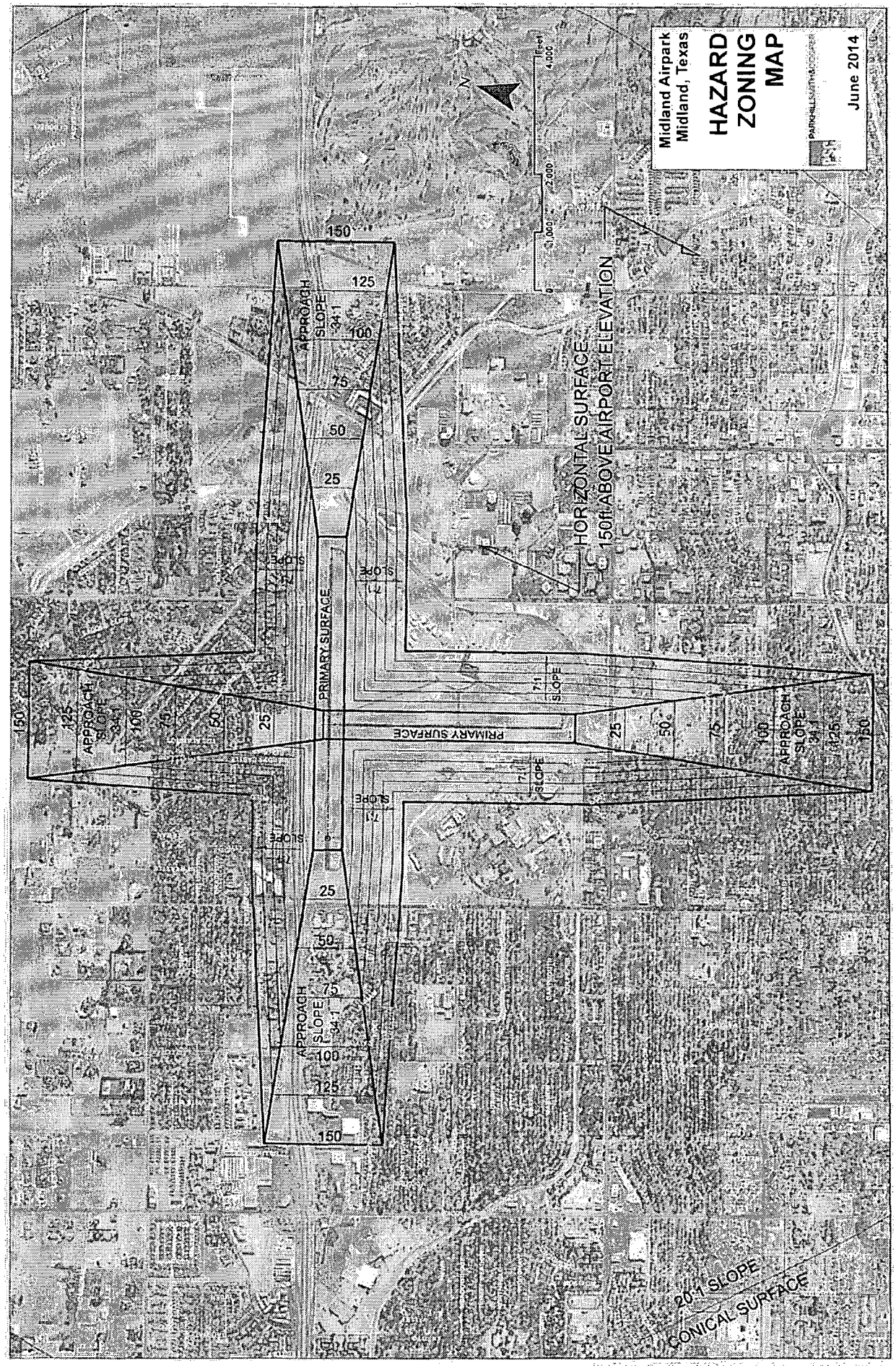
(8) Residential buildings not permitted.

(9) Construction design and materials must be approved by the City Engineer, after consultation with the Director of Airports, in order to ensure appropriate protection of public health and safety of occupants or users of the building, before construction may commence.

Midland International Airport
Midland, Texas
HAZARD ZONING MAP
June 2014
Legend
County Line
TxDOT_Roadways
Interstate
Business Interstate
State Highway
Farm to Market
US Highway
Midland Arterial
Odessa City Limits
Midland City Limits
Miles
N
Midland County
Midland
Odessa
Ector County
Martin County
Andrews County
MIDLAND COUNTY LINE
ECTOR COUNTY LINE
Transitional Surface
Precision Approach 50:1 Approach Surface
Non-Precision Approach 34:1 Approach Surface
Horizontal Surface 150th Plane El. 3028.0'
Conical Surface
Non-Precision Approach Runway 16 Primary Surface
Non-Precision Approach Runway 34 Primary Surface

Midland International Airport
Midland, Texas
COMPATIBLE
LAND USE ZONING
AOZ-1, AOZ-2 & AOZ-3
MAP
June 2014
Legend
AOZ-3
AOZ-2
AOZ-1
Permissible Airport Zoning Boundary
TxDOT_Roadways
Interstate
Business Interstate
State Highway
Farm to Market
US Highway
Midland Airport
Odessa City Limits
Midland City Limits
County Line
Midland
Odessa
Ector County
Midland County
AOZ-3
AOZ-2
AOZ-1
65
70
75
80
85
N
0
0.5
1
2 Miles

Legend
Zones
AOZ-4
Permissible Airport Zoning Boundary
TxDOT_Roadways
Interstate
Business Interstate
State Highway
Farm to Market
US Highway
Midland Airfield
Odessa City Limits
Midland City Limits
County Line
Midland International Airport
Midland, Texas
COMPATIBLE
LAND USE ZONING
AOZ-4
MAP
June 2014
Midland
Midland
County
Odessa
Ector
County
AOZ-4
N
Miles
0
0.5
1
2


Midland Airpark
Midland, Texas
HAZARD ZONING MAP
June 2014
PATCHELL SMITH
N
HORIZONTAL SURFACE
150ft ABOVE AIRPORT ELEVATION
PRIMARY SURFACE
APPROACH SLOPE 34:1
7:1 SLOPE
20:1 SLOPE
CONICAL SURFACE
150
125
100
75
50
25

Legend
AOZ-1
Permissible Airport Zoning Boundary
Midland City Limits
TxDOT_Roadways
Highway/Roadways
Interstate
Business Interstate
State Highway
Farm to Market
US Highway
Midland Arterial
Midland Airpark
Midland, Texas
COMPATIBLE
LAND USE
ZONING
June 2014
PARKHILLSMITH&COOPER
N
0
2,500
5,000
10,000
Feet
AOZ-1

Ord # 9302

# City Council Agenda

Approved for Agenda:
**RPatrick**
City Manager's Office

**MEETING DATE:** **August 12, 2014**

**TO:** **CITY COUNCIL/CITY MANAGER**

**FROM:** **Robert Baronti, AICP, Interim Planning Division Manager**

**SUBJECT:** **Airport Height Hazard and Land Use Zoning**

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**Purpose:**
Consider an ordinance on second reading on a request in a city-initiated request to amend Chapter 11 "Airport Height Hazard and Land Use Zoning" to Title XI, "Planning and Development" of the City Code.

**Recommended City Council Action**
☒ Approve ☐ Deny ☐ Directional / Informational

**Fiscal Impact:**

**Discussion:**

As Midland moves closer to obtaining our Commercial Launch Site Operating License (Spaceport License) it is necessary to protect departure corridors. In the near future suborbital flights out of Midland International will become part of its normal operations. Federal law requires airports to protect from Height Hazards and Incompatibility Land Uses. The State of Texas in 1987 adopted the Texas Airport Zoning Act that gives overlay zoning authority to airports to protect against use of land adjacent to an airport [so as not to] endanger the health, safety, or welfare of owners, occupants, or users of land because of levels of noise or vibrations or risk of personal injury or property damage created by the operations of the Airport.

Recently, the Airport contracted with SilverWing Enterprises to analyze projected spaceport departure corridors and calculate probable risk associated to current and future departure trajectories. This study was utilized in determining acceptable risk levels as per Federal Aviation Administration (FAA) regulation CFR Part 420 (Ec< 30X 10-6) for these corridors and help define an overlay zoning map that will be implemented into the Airport Zoning Ordinance.

The City Council voted to approve this ordinance on first reading on July 22, 2014. This ordinance is now ready for consideration on second and final reading.

# Table 1 – Prohibited Land Uses

| Land Use | Airport Overlay Zones | | | |
|---|---|---|---|---|
| | Sound Level in DNL | | | Launch Safety Corridors |
| | AOZ-1 65-70 DNL | AOZ-2 70-75 DNL | AOZ-3 75-80 DNL | AOZ-4 |
| **Residential** | | | | |
| Residential, other than mobile homes and transient lodgings | N(1) | N(1) | N | N |
| Mobile home parks | N | N | N | N |
| Transient lodgings | N(1) | N(1) | N(1) | N |
| | | | | |
| **Public Use** | | | | |
| Schools | N(1) | N(1) | N | N |
| Hospitals and nursing homes | 25 | 30 | N | N |
| Churches, auditoriums and concert halls | 25 | 30 | N | N |
| Governmental services | Y | 25 | 30 | Y(9) |
| Transportation | Y | Y(2) | Y(3) | Y(9) |
| Parking | Y | Y(2) | Y(3) | Y(9) |
| | | | | |
| **Commercial Use** | | | | |
| Offices, business and professional | Y | 25 | 30 | Y(9) |
| Wholesale and retail-building materials, hardware and farm equipment | Y | Y(2) | Y(3) | Y(9) |
| Retail trade – general | Y | 25 | 30 | N |
| Utilities | Y | Y(2) | Y(3) | Y |
| Communication | Y | 25 | 30 | Y |
| | | | | |
| **Manufacturing and Production** | | | | |
| Manufacturing – general | Y | Y(2) | Y(3) | Y(9) |
| Photographic and optical | Y | 25 | 30 | Y(9) |
| Agriculture (except livestock) and forestry | Y(6) | Y(7) | Y(8) | Y |
| Livestock farming and breeding | Y(6) | Y(7) | N | Y |
| Mining and fishing, resource production and extraction | Y | Y | Y | Y |
| | | | | |
| **Recreational** | | | | |
| Outdoor sports arenas and spectator sports | Y(5) | Y(5) | N | N |
| Outdoor music shells, amphitheaters | N | N | N | N |
| Nature exhibits and zoos | Y | N | N | N |
| Amusements, parks, resorts and camps | Y | Y | N | N |
| Golf courses, riding stables, and water recreation | Y | 25 | 30 | N |

Numbers in parentheses refer to notes.

KEY TO TABLE 1

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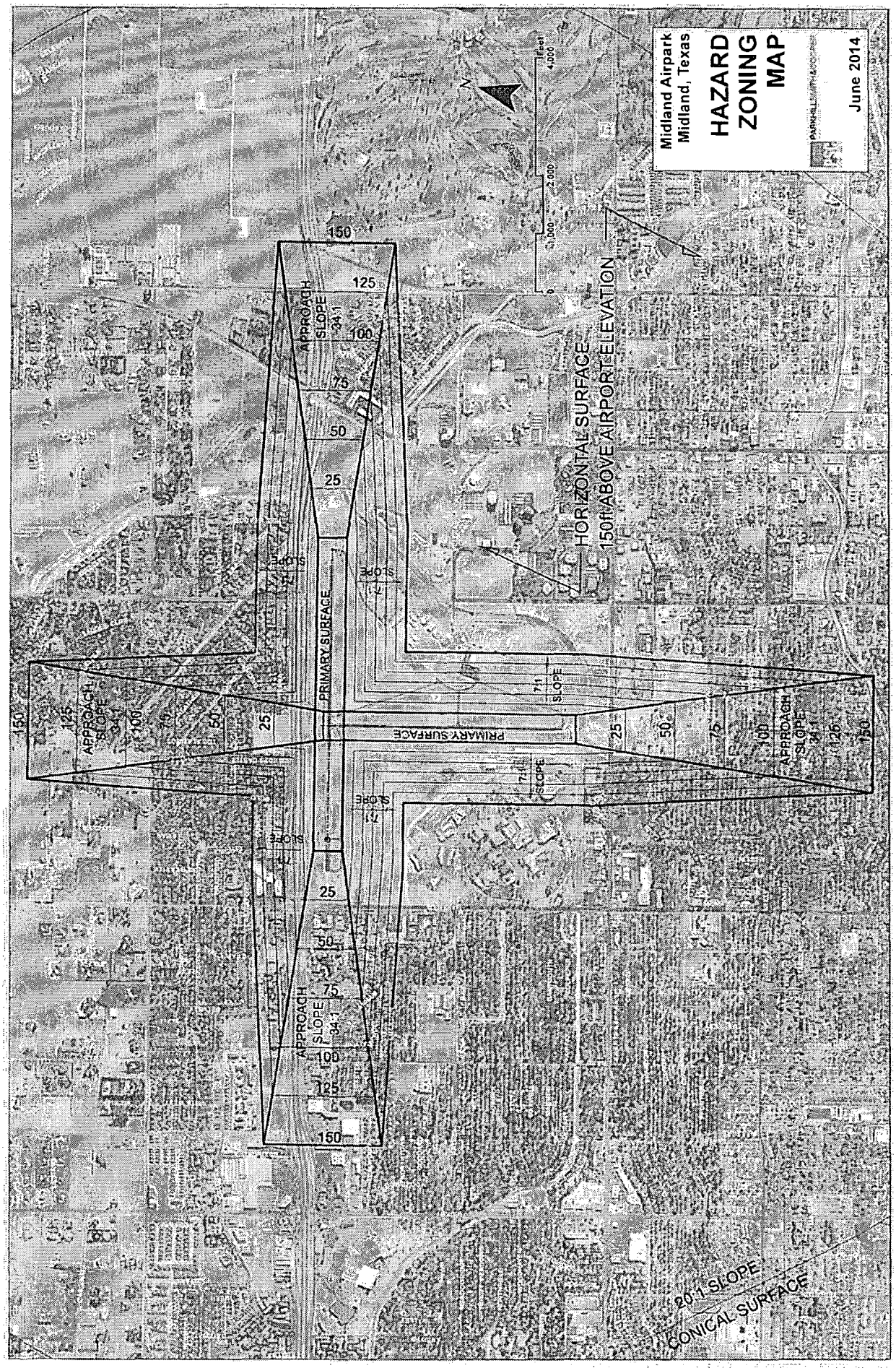
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Midland International Airport
Midland, Texas
HAZARD ZONING MAP
June 2014
Legend
County Line
TxDOT_Roadways
Interstate
Business Interstate
State Highway
Farm to Market
US Highway
Midland Arterial
Odessa City Limits
Midland City Limits
N
Miles
0
0.5
1
2
Midland County
Midland
Odessa
Martin County
Andrews County
Ector County
MIDLAND COUNTY LINE
ECTOR COUNTY LINE
Transitional Surface
Transitional Surfaces
Transitional Surface
Transitional Surface
Transitional Surface

Legend
AOZ-3
AOZ-2
AOZ-1
Odessa Airport Zoning Boundary
TxDOT_Roadways
Interstate
Business Interstate
State Highway
Farm to Market
US Highway
Midland Arterial
Odessa City Limits
Midland City Limits
County Line
Midland International Airport
Midland, Texas
COMPATIBLE
LAND USE ZONING
AOZ-1, AOZ-2 & AOZ-3
MAP
June 2014
Midland
Odessa
Ector
County
Midland
County
AOZ-3
AOZ-2
AOZ-1
65
70
75
80
85
N
0
0.5
1
2 Miles

Legend
Zones
AOZ-4
Permissible Airport Zoning Boundary
TxDOT_Roadways
Interstate
Business Interstate
State Highway
Farm to Market
US Highway
Midland Arterial
Odessa City Limits
Midland City Limits
County Line
Midland International Airport
Midland, Texas
COMPATIBLE
LAND USE ZONING
AOZ-4
MAP
June 2014
Midland
Midland
County
Odessa
Ector
County
AOZ-4
N
0
0.5
1 Miles


Midland Airpark
Midland, Texas
HAZARD ZONING MAP
June 2014
PARCELS
Feet
4,000
2,000
0
N
150
125
100
75
50
25
APPROACH SLOPE 34:1
PRIMARY SURFACE
7:1 SLOPE
HORIZONTAL SURFACE
150ft ABOVE AIRPORT ELEVATION
20:1 SLOPE
CONICAL SURFACE

Midland Airpark
Midland, Texas
COMPATIBLE
LAND USE
ZONING
June 2014
PARKHILL SMITH & COOPER
Legend
AOZ-1
Permissible Airport Zoning Boundary
Midland City Limits
TxDOT_Roadways
Highway/Roadways
Interstate
Business Interstate
State Highway
Farm to Market
US Highway
Midland Arterial
N
0
2,500
5,000
10,000
Feet
AOZ-1

KAPLAN KIRSCH ROCKWELL

# MEMORANDUM

**TO:** Marv Esterly, Director of Airports,
CITY OF MIDLAND, TX

**FROM:** KAPLAN KIRSCH & ROCKWELL

**DATE:** July 10, 2014

**SUBJECT:** Compatible Land Use around Midland International Airport

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## Background

The City of Midland (City) has decided to establish a commercial space launch site at the Midland International Airport (MAF) for the operation of horizontal take-off and horizontal landing reusable launch vehicles. The purpose of the City's proposal to establish a commercial launch site at MAF reflects the City's goals, as established in the *Midland Master Plan 2025*, of diversifying the local economy and enhancing the region as a business and employment center. In order to operate a commercial space launch site, the City must obtain a launch site operator license from the Federal Aviation Administration (FAA). The City submitted an application to FAA in 2012 and anticipates final approval for the license by late summer 2014.

The application to establish a commercial space launch site is complex and requires submission of detailed technical information. 14 C.F.R. Part 420. FAA regulations establish stringent criteria to qualify as a commercial space launch site. *Id.* at Subpart B. The City must demonstrate that it can meet all of these criteria before it can receive the requisite FAA license. *Id.* Accompanying the license to operate a space launch site, the City must undertake federally mandated actions to protect the safety of people on the ground under the launch and reentry trajectories. *Id.* at Subparts B and D.

FAA imposes varying regulatory requirements on an airport owner depending upon the type of aeronautical activity that is accommodated at its airports. For example, the federal regulatory requirements at Midland Airpark, which is not authorized to accommodate commercial passenger operations, are far less stringent than those governing MAF, which does offer commercial passenger service. *See* 14 C.F.R. Part 139. The FAA imposes an entirely different set of requirements on facilities operating as commercial space launch sites. 14 C.F.R. Parts 420, 432. Because the City has decided to operate MAF as both a commercial service airport and a spaceport, FAA regulations obligate it to comply with multiple sets of restrictions and requirements.

Ensuring the safety of the launch site and safety of the public in nearby areas is one of the most important obligations of the City as the holder of a launch site license. Among other requirements, the City must demonstrate to the FAA's satisfaction that both the launch and landing of a reusable launch vehicle can be achieved without endangering the public on the ground. 14 C.F.R. §§ 420.19, 420.25. The FAA has established the standard for what constitutes an acceptable safety risk and has provided guidance on how to calculate the allowable safety risk. *Id.* The FAA will not grant a license if the risk exceeds a defined level. *Id.* The formula is based in part on the types of land use and population density under the possible flight trajectories. If the land uses change such that there is an increase the population under the flight trajectories and that change increases the estimated risk beyond a defined level, the FAA can revoke the City's launch site license. *Id.* at Part 420, Subpart D. Accordingly, if the City is to obtain a launch site license, it is in the public interest for the City to prevent land uses that are incompatible with the operation of commercial space launches at MAF.

As in many large and small communities, growth in the demand for aviation services has coincided with rapid growth in the nearby communities themselves. Previously rural airports often find themselves faced with encroaching communication towers, high-rise buildings, and demand for new housing. *See, e.g., Airport Compatibility Guidelines*, Texas Department of Transportation, Aviation Division (January 2003) at 3-4. Incompatible land uses can impose serious constraints on airport operations and capacity. *Id.* Many states and local governments have learned that preventing development of incompatible land uses around an airport is vastly preferable to attempting to resolve the often insoluble conflicts that later arise in the absence of effective land use planning. *Id.* Many airports in Texas and around the country, especially those surrounded by undeveloped land, have adopted zoning regulations and have pursued other land use strategies to guard against the future encroachment of incompatible land uses that would constrain airport growth and capacity.

To facilitate airport owners' ability to impose zoning regulations that protect the long-term growth and viability of an airport, the Texas Airport Zoning Act, codified at Texas Local Government Code Title 7, Chapter 241, authorizes the City to adopt regulations in order to prevent the creation of an airport hazard and to adopt zoning regulations to provide protection against incompatible land uses around the airport.

The City has long recognized the importance of maintaining land use compatibility in the vicinity of both MAF and Midland Airpark and has adopted an airport zoning ordinance to ensure the development of compatible land uses around both MAF and Midland Airpark. *See* Title XI, Chapter 11 of the Municipal Code of the City of Midland (City Code), adopted in 2007. The airport zoning regulation adopted by the City in 2007 addressed land use compatibility in connection with the incompatibility associated specifically with height hazards and noise exposure.

While those tools have proven effective to address land use compatibility with commercial airport operations, the City now seeks to become the first commercial service airport in the country to offer services as a commercial spaceport at the same location (sharing the runways with existing aircraft operations). The introduction of commercial spacecraft into the airport environment raises new and complex land use compatibility challenges that the City must now

address. Specifically, in addition to concerns about structure height and noise exposure in communities surrounding MAF, federal law requires the City to address public safety issues that are unique to the launch and landing of spacecraft. As far as we are aware, Midland will be the first city in the country to adopt land use compatibility zoning based on safety concerns as well as height hazards and noise exposure. This unique situation requires the City to focus on its investment in MAF, and the use of MAF as a commercial spaceport, and to make policy choices that, by restricting encroachment of incompatible land uses, will ensure the long-term viability of MAF as an airport capable of accommodating commercial spacecraft.

This memorandum discusses a proposed ordinance which would amend Title XI, Chapter 11 of the City Code. Chapter 11 currently contains the airport height hazard and land use regulations adopted by the City Council in 2007. This memorandum recommends amendment and re-adoption of Chapter 11 to include a new airport overlay zone to protect public health and safety and to ensure safe operation of MAF as a launch site for space vehicles.

**Amendment to City of Midland's Current Airport Zoning Regulation**

As indicated in the findings in the proposed ordinance, an amendment to the City's current airport zoning regulation is needed in order to protect against encroachment into launch trajectory areas so as to ensure safe launch and landing of reusable launch vehicles at MAF. In conjunction with the City's seeking a license to allow it to use MAF as a launch site for commercial space operations, the need for the amendment is based upon:

- the importance of safe and financially sound operation of MAF for the economic vitality of the region;
- the resources the City has invested in use of MAF as a commercial space launch site;
- the importance of limiting land uses near the Airport that could endanger the public or aircraft operators;
- the importance of protecting the City's investment in MAF; and
- the requirements of federal law, federal policy, FAA regulations, and federal grant assurances that airport owners like the City take appropriate action, including the adoption of zoning laws, to restrict the use of land adjacent to or near an airport to activities and purposes that are compatible with airport operations.

**Summary of Proposed Ordinance**

The ordinance makes the following additions to Title XI, Chapter 11 of the City Code:

- The ordinance establishes a new airport overlay zone, referred to as AOZ-4, the boundaries of which are shown on the map entitled "Compatible Land Use Zoning AOZ-4." These boundaries are defined by:
    - The Texas Airport Zoning Act, which designates the size of the envelope around an airport in which land uses may be limited through airport zoning regulations (the permissible zoning area boundary is shown in black on the AOZ maps); and

  - The planned and expected flight trajectories of reusable launch vehicles taking off from, and landing at, MAF.
- In order to protect public safety and comply with federal regulations, the ordinance regulates land use in AOZ-4 by establishing prohibited and restricted uses, as shown on Table 1 of the proposed ordinance.[1] Specifically:
  - It prohibits new residential, retail, certain public uses, and most outdoor recreational uses in AOZ-4;
  - It restricts other uses by requiring that construction design and materials be approved by the City Engineer before construction commences in order to ensure appropriate protection of public health and safety of occupants or users of the building;
  - It requires that a permit be obtained before commencement of any new construction in AOZ-4; and
  - It provides a procedure for seeking a variance in AOZ-4 from the City Board of Adjustment.

In addition, the ordinance makes minor language changes to the existing Chapter 11 to enhance clarity and slightly expands the boundaries of AOZs 1-3 in order to reflect the City's most recent noise exposure analysis, which takes into account noise exposure from commercial space launches.

**Legal Authority and Procedural Requirements to Adopt New Airport Zoning Regulations**

The Texas Airport Zoning Act authorizes a political subdivision (such as the City) which owns a public use airport to adopt airport hazard area and compatible land use zoning regulations both within and outside the boundaries of the City. Local Government Code at Section 241.013. Under this authority, and in order to ensure both the safety of the public and the continued ability of MAF to serve the aviation needs of this community (including serving as a commercial space launch site), the Director of Airports has proposed that the City establish an airport overlay zone and regulate land uses within that zone to ensure that all land uses are compatible with safe launch and landing of space launch vehicles. This overlay zone will be distinct from the existing airport overlay zones, which regulate land uses according to the level of noise exposure adjacent to or near the airport.

Pursuant to the Airport Zoning Act at Section 241.016, in order for the City Council to amend or adopt new airport zoning regulations, the Airport Planning Commission must recommend boundaries of airport zones to be established and the regulations for these zones. The Midland Planning and Zoning Commission is authorized to sit as the Airport Zoning Commission ("Commission") for the purpose of hearing and reporting on proposed airport zoning regulations. Midland City Code at Section 11-11-4(E). In compliance with state law requirements, the

[1] Because adoption of this ordinance is reasonably taken to fulfill an obligation mandated by federal law, it does not trigger the requirements of the Texas Private Real Property Rights Preservation Act, codified at Texas Government Code Section 2007.001, et seq., and accordingly does not require preparation of a Takings Impact Assessment.

Commission published notice of a public hearing regarding the proposed airport zoning overlay boundaries and regulations. At that hearing, on July 7, 2014, the Commission heard from the public and subsequently approved the proposed ordinance and forwarded its report and approval of the proposed ordinance to the Midland City Council.

Before adopting or amending an airport zoning regulation under the Airport Zoning Act, the City Council must also post a notice of public hearing in compliance with Local Government Code Sec. 241.017, and hold a hearing on the proposed ordinance at which parties in interest and citizens have an opportunity to be heard. This hearing is tentatively scheduled for August 12, 2014.

**Federal Requirements Regarding Compatible Land Use**

Federal law, regulations, and guidance, as well as the federal grant assurances require the City to engage in land use compatibility zoning to ensure minimal risk to the public from any mishaps because of commercial spaceport operations, and to protect all operations at the MAF from potential hazards and from conflicts regarding noise exposure from airport operations.

*A. Federal Grant Assurances*

Title 49, Section 47101 of the United States Code imposes numerous obligations on airports that must be met if an airport is to receive federal funding. Once an airport receives federal funding, it continues to be bound by these obligations for a period of 20 years from the date of the most recent grant. The City receives annual grants from the FAA and therefore is bound by these obligations, known as grant assurances. One of the grant assurances specifically addresses an airport owner's obligation to ensure compatible land use around an airport:

- Grant Assurance 21: *Compatible Land Use*

> [The sponsor] will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.

FAA's *Airport Compliance Manual*, FAA Order 5190.6B, ¶ 20.2(e) (2009) provides guidance regarding the actions that an airport owner and operator must take to ensure compliance with Grant Assurance 21:

> Where the sponsor does have authority to zone or control land use, FAA expects the sponsor to zone and use other measures to restrict

> the use of land in the vicinity of the airport to activities and purposes compatible with normal airport operations. Restricting residential development near the airport is essential in order to avoid noise-related problems. ...[A]ny sponsor that has the authority to adopt ordinances restricting incompatible land use and limiting the height of structures in airport approaches ... is generally expected to use that authority"

Where the airport sponsor does not have zoning authority, the sponsor must make a reasonable attempt to work to change zoning laws, or else to ensure compatible land uses through other means, including noise insulation, land acquisition, purchase of easement, and real estate disclosure programs; these tools are also available to be used together with zoning of land uses. *Id* at 20.2(d). As discussed above, however, Texas law does authorize the City to adopt ordinances restricting incompatible land use around its airports.

*B. Title 51, U.S. Code, Ch. 509, Commercial Space Launch Activities*

Chapter 509 governs commercial space launch activities and requires anyone operating a launch *vehicle* and anyone operating a launch *site* to first obtain a license from the Department of Transportation. In adopting Chapter 509, Congress emphasized the federal government's commitment to safety as it expands opportunities for commercial space launches, finding that

- Space transportation is inherently risky, and the future of the commercial human space flight industry will depend on its ability to continually improve its safety performances;
- A critical area of responsibility for the Department of Transportation is to regulate the operations and safety of the emerging commercial human space flight industry.

51 U.S.C. § 50901. In accordance with this commitment, the FAA has promulgated regulations aimed at ensuring that any federally licensed launch site is operated with safety as a top priority.

*C. Federal Aviation Regulations Part 420, License to Operate a Launch Site*

Title 14 of the Code of Federal Regulations, Part 420, prescribes requirements for a launch site license application, the bases for license approval by the FAA, and post-licensing requirements.

Under Part 420, a "safe launch" must pose an estimated casualty risk (referred to as E(c)) that does not exceed an average number of 0.000003 casualties to the collective members of the public exposed to hazards from the flight. 14 C.F.R. § 420.19. In other words, E(c) must be less than $30 \times 10^{-6}$. The FAA will not approve the location of a proposed launch site if the estimated expected casualty exceeds $30 \times 10^{-6}$, nor will it subsequently approve any individual launches as required under 14 C.F.R. Part 432, even if MAF has obtained a launch site license.

The purpose of establishing a maximum acceptable casualty risk is to ensure that risks to public safety presented by launch and reentry operations are limited to an acceptable level. Reducing the consequences of mission or vehicle failure is most directly achieved by avoiding operations over or near populated areas. *See Flight Safety Analysis Handbook*, Federal Aviation Administration (Sept. 2011) at ¶¶3.1, 3.2. Consequently, achieving compatible land use for commercial space launch and reentry requires the City to protect against encroachment of populated areas into the launch and reentry trajectories.

**Conclusion and Recommendation**

If the City is to obtain a space launch site license and retain it so as to accommodate the growth of the commercial space industry in the future, it must act now to preserve compatible land uses in the vicinity of MAF.

The proposed ordinance is needed in order to comply with (a) federal law, (b) FAA regulations, (c) binding FAA guidance, and (d) federal grant assurances to which the City is statutorily and contractually bound, concerning the operation of MAF as a space launch site. The ordinance also represents a prudent action by the City to comply with its obligation as the airport owner to provide a safe environment for aircraft operations and people on the ground. The airport overlay zone at MAF is designed to protect against encroachment of land uses that would be incompatible with federal safety requirements associated with launch and reentry of space vehicles. In addition, the overlay zones associated with noise exposure should be refined to reflect the most recent noise exposure information, including exposure to noise from launch and reentry of reusable launch vehicles.

Before the City of Midland Planning and Zoning Commission/Airport Zoning Commission

A proposal to establish the boundaries of airport overlay zones and provide regulations for land uses and height hazards within the zones.

June 24, 2014

**RECOMMENDATION**

The Director of Airports recommends that the Airport Zoning Commission submit a report to the Midland City Council recommending approval of the proposed ordinance.

**REPORT**

The City of Midland has proposed to operate a commercial space launch site at the Midland International Airport (MAF) for the operation of horizontal take-off and horizontal landing reusable launch vehicles. To operate a commercial space launch site, the City must obtain a launch site operator license from the Federal Aviation Administration ("FAA"). The City submitted an application to FAA in 2012 and anticipates final approval for the license by late summer 2014.

The purpose of the City's proposal to establish a commercial launch site at MAF reflects the City's goals as established in the *Midland Master Plan 2025*, of diversifying the local economy and enhancing the region as a business and employment center. To be successful as a commercial space launch site, however, the area covered by the launch trajectory must meet numerous technical and operational requirements that comply with federal regulations, including requirements designed to ensure public safety in connection with commercial space flight.

Protecting the safety of people on the ground under the launch trajectory is critical for the City to operate a successful commercial space launch site. Before it can receive a launch site license from the FAA, the City must demonstrate to the FAA's satisfaction that the launch and landing of a reusable launch vehicle can be achieved without endangering the public on the ground. The FAA provides a formula by which to calculate the allowable safety risk, and will not grant a license if the risk exceeds a defined level. If land uses under the possible flight trajectories change so as to increase risk beyond the acceptable, the license will be revoked. Accordingly, it is in the public interest to prevent land uses that are incompatible with the operation of the Airport to accommodate both commercial air service and commercial space launches.

One key step in preparing to serve commercial space launch vehicles is for the City to ensure that the zoning and land use in the vicinity of MAF is compatible with these proposed operations. This report accompanies a proposed ordinance which would amend Title XI, Chapter 11 of the Municipal Code of the City of Midland ("City Code"). Chapter 11 currently contains airport height hazard and land use regulations adopted by the City Council in 2007. This report recommends amendment and re-adoption of Chapter 11 to include a new airport overlay zone to protect public health and safety and to ensure safe operation of the Midland International Airport when used as a launch site for space vehicles.

Pursuant to the Texas Airport Zoning Act, codified at Texas Local Government Code Section 241.016 and Section 11-11-4(E) of the City Code, the Planning and Zoning Commission is authorized to sit as the Airport Zoning Commission ("Commission") for the purpose of hearing and reporting on proposed airport zoning regulations. In order for the City Council to amend or adopt new airport zoning regulations, the Commission must recommend boundaries of airport zones to be established and the regulations for these zones. In order to comply with state requirements, the Commission is charged with making a preliminary report and holding hearings on the report before submitting a recommendation to the City Council. This staff report and the accompanying draft ordinance together constitute the preliminary report on which the Commission will hold a public hearing on July 7, 2014.

The Airport Zoning Act, Texas Local Government Code Section 241.013, authorizes a political subdivision such as the City of Midland which owns a public use airport to adopt airport hazard area and compatible land use zoning regulations both within and outside the boundaries of the City. Under this authority, and in order to ensure both the safety of the public and the continued viability of MAF as a commercial space launch site, the Director of Airports has proposed that the City establish an airport overlay zone and regulate land uses within it to ensure that all land uses are compatible with launch and landing of launch vehicles. This overlay zone will be distinct from the existing airport overlay zones, which regulate land uses according to the level of noise exposure adjacent to or near the airport.

The findings of the proposed ordinance attached to this report emphasize

- the importance of safe and financially sound operation of MAF for the economic vitality of the region;
- the resources the City has invested in use of MAF as a commercial space launch site;
- the importance of limiting land uses near the Airport that endanger the public or aircraft operators;
- the importance of protecting the City's investment in MAF; and
- the requirements of federal law, federal policy, FAA regulations, and federal grant assurances that airport owners like the City of Midland take appropriate action, including the adoption of zoning laws, to restrict the use of land adjacent to or near an airport to activities and purposes that are compatible with airport operations.

The proposed ordinance makes the following additions to Title XI, Chapter 11 of the City Code:

- It establishes a new airport overlay zone, to be referred to as AOZ-4, the boundaries of which are shown on the map entitled "Compatible Land Use Zoning AOZ-4." These boundaries are defined by
    - The Texas Airport Zoning Act, which designates the size of the envelope around the airport in which land uses may be limited through airport zoning regulations (the permissible zoning area boundary is shown in black on the AOZ maps); and
    - The planned and expected flight trajectories of reusable launch vehicles taking off from and landing at MAF.
- In order to protect public safety and comply with federal regulations, the ordinance regulates land use in AOZ-4 by establishing prohibited and restricted uses, as shown on Table 1 of the proposed ordinance. Specifically:
    - It prohibits new residential, retail, certain public uses, and most outdoor recreational uses in AOZ-4;
    - It restricts other uses by requiring that construction design and materials be approved by the City Engineer before construction commences in order to ensure appropriate protection of public health and safety of occupants or users of the building;
    - It requires a permit be obtained before commencement of any new construction in AOZ-4; and
    - It provides a procedure for seeking a variance in AOZ-4 from the City of Midland Board of Adjustment

In addition, the proposed ordinance makes minor changes to the existing Chapter 11 in order to enhance clarity. Finally, the proposed ordinance slightly expands the boundaries of AOZs 1-3 in order to reflect the most recent noise exposure analysis performed by the City, which takes into account noise exposure from commercial space launches.

The City has retained outside counsel who has extensive expertise on matters of compatible land use in the vicinity of airports throughout the nation. Counsel has reviewed the proposed airport zoning regulation and determined that, because it is reasonably taken to fulfill an obligation mandated by federal law, it does not trigger the requirements of the Texas Private Real Property Rights Preservation Act, codified at Texas Government Code Section 2007.001, et seq., and accordingly does not require preparation of a Takings Impact Assessment.

# City Council Meeting

**Item Number:** 45

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Landon Ochoa, Senior Planner

**Subject:** AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR A 0.42-ACRE TRACT OF LAND OUT OF LOT 2, BLOCK 30, HALEY HEIGHTS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF SOUTH MCKENZIE STREET AND WEST FRANCIS AVENUE), BY PERMITTING A REDUCED MINIMUM LOT WIDTH; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION (DISTRICT 2) (DEVELOPMENT SERVICES)

---

**Purpose:**

The applicant, Carl Englestad, is requesting a Special Exception from the City of Midland Zoning Ordinance, Section 5.04 – Residential Zoning District Dimensional Regulations Chart, to allow reduced minimum lot widths for interior lots and a corner lot in the MH, Manufactured Housing District.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

No City funds are required to process this request.

**Discussion:**

The MH, Manufactured Housing District requires an interior lot to have 50 feet of width and a

corner lot to have 55 feet of width. Per the proposed lot widths shown in Exhibit B, a special exception is needed for the applicant to proceed with the proposed replat of this property.

This request has been circulated to all pertinent City departments for review. Below are the departments' comments.

**Fire: (Approved)**

No comments.

**Building: (Approved)**

No objections.

**Engineering: (Approved)**

No objection to zone change. [For the Applicant's information only.]
Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations. [For the Applicant's information only.]

**Code Compliance: (Approved)**

No Oil and Gas issues.

**Transportation: (Approved)**

Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations. [For the Applicant's information only.]

No objection to zone change. [For the Applicant's information only.]

Right-of-way dedication will be required along Francis Ave. during the platting process.

**Planning (Approved):**

Although the applicant is proposing a reduced lot width, the required lot depth for a lot in the MH is 100 feet. As shown on Exhibit B, the lot depths will exceed this requirement as they will be 140 feet deep. Additionally, the minimum area for a lot in this zoning district is 5,000 square feet. This requirement is also exceeded with the proposed lots being approximately 6,098 square feet.

The Tall City Tomorrow Comprehensive Plan, Chapter 4 - Housing & Neighborhoods, Goals 3 and 4 encourages infill developments to provide affordable and diverse housing options for all income levels. The reduction in the lot width for this property will aid in carrying out these policies within the City of Midland as it will allow the developer to have one more lot while still

meeting the building setbacks.

Staff recommends approval of this request subject to conditions A and B.

**Condition:**

**A. That the Property may be replatted into three lots that each have a minimum lot width of 44 feet as shown in Exhibit "B", which is attached hereto and incorporated herein.**

**B. For the avoidance of doubt, this ordinance does not allow a reduced minimum lot width except as provided in Subsection A above.**

**Letters of Objection:**

Staff has not received any letters of objection as of November 2, 2023.

**Attachments:**

Metes & Bounds (Exhibit A)
Site Plan (Exhibit B)
Application
Maps

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR A 0.42-ACRE TRACT OF LAND OUT OF LOT 2, BLOCK 30, HALEY HEIGHTS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF SOUTH MCKENZIE STREET AND WEST FRANCIS AVENUE), BY PERMITTING A REDUCED MINIMUM LOT WIDTH; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION

WHEREAS, the City Council modified the authority of the Board of Adjustment in Title XI, Chapter 1, Section 7 ("Section 11-1-7") of the Midland City Code; and

WHEREAS, Section 11-1-7 provides for the consideration of requests for special exceptions to the Midland Zoning Ordinance; and

WHEREAS, the Council finds that satisfactory evidence has been presented that the use to be authorized by the granting of the special exception will not be detrimental to the health, safety, comfort and welfare of the occupants of the land area near the tract on which the use to be allowed by special exception will be located; and

WHEREAS, after a full and fair public hearing at which all parties in interest were offered an opportunity to be heard, all pursuant to law, the Council finds it to be in the public interest to grant a special exception to the Zoning Ordinance, pursuant to Section 11-1-7, for the purposes herein stated, subject to special conditions;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That a special exception is hereby granted for the property

described as a 0.42-acre tract of land out of Lot 2, Block 31, Haley Heights Addition, City

and County of Midland, Texas (the "Property"), said Property being more fully described by metes and bounds in Exhibit "A", which is attached hereto and incorporated herein. Said special exception shall allow a reduced minimum lot width.

SECTION TWO. Said special exception is subject to the following special conditions:

A. That the Property may be replatted into three lots that each have a minimum lot width of 44 feet as shown in Exhibit "B", which is attached hereto and incorporated herein.

B. For the avoidance of doubt, this ordinance does not allow a reduced minimum lot width except as provided in Subsection A above.

SECTION THREE. The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

SECTION FOUR. If any section, subsection, sentence, clause or phrase of this ordinance is, for the avoidance of doubt, this ordinance does not allow a reduced minimum lot width except as provided in Subsection A above.

SECTION THREE. The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

SECTION FOUR. If any section, subsection, sentence, clause or phrase of this ordinance is, for the avoidance of doubt, this ordinance does not allow a reduced minimum lot width except as provided in Subsection A above.

SECTION FIVE. The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

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SECTION SIX. The City Secretary is hereby authorized and directed to file this

SECTION SIX. The City Secretary is hereby authorized and directed to file this

ordinance with the Office of the County Clerk for purposes of recordation.

SECTION SEVEN. The City Secretary is hereby authorized and directed to publish

the descriptive caption of this ordinance in the manner and for the length of time prescribed

by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on

first reading the _____ day of _____, A.D., 2023; and passed to second reading

Council members voting "AYE":

on motion of Council member _____, seconded by Council member

Council members voting "NAY":

_____, by the following vote:

The above and foregoing ordinance was read in full and finally adopted by the

following vote upon motion of Council member _____, seconded by Council

Council members voting "AYE":

member _____, on the _____ day of _____, A.D., 2023, at a regular

Council members voting "NAY":

meeting of the City Council:

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____

Lori Merritt Blong, Mayor

ATTEST:

_____

Marcia Bentley-German, City Secretary

APPROVED AS TO CONTENT

AND COMPLETENESS:

_____
Cristina Burns, Director of Development Services

APPROVED ONLY AS TO FORM:

_____

John Ohnemiller, City Attorney

# EXHIBIT "A"

FIELD NOTE DESCRIPTION OF A 0.42 ACRE TRACT OF LAND IN LOT 2, BLOCK 30, HALEY HEIGHTS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS. SAID 0.42 ACRE TRACT DESCRIBED MORE FULLY BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A REINF BAR SET (N:10688583.05, E:1755017.04) IN THE NORTH RIGHT OF WAY LINE OF WEST FRANCIS AVENUE AND IN THE WEST LINE OF A 20.00' ALLEY FOR THE SOUTHEAST CORNER OF THIS TRACT, ALSO BEING THE SOUTHEAST BLOCK CORNER OF SAID BLOCK 30, OF SAID HALEY HEIGHTS ADDITION, AN ADDITION TO THE CITY OF MIDLAND, MIDLAND COUNTY TEXAS, AS PER THE MAP OF PLAT RECORDED IN THE OFFICE OF THE COUNTY CLERK OF MIDLAND COUNTY;

THENCE SOUTH 75°33'16" WEST, ALONG SAID NORTH RIGHT OF WAY LINE OF SAID WEST FRANCIS AVENUE, 140.00 FEET TO A REINF BAR FOUND MARKED "WPG" IN SAID NORTH RIGHT OF WAY LINE OF SAID WEST FRANCIS AVENUE AND IN THE EAST RIGHT OF WAY LINE OF McKENZIE STREET FOR THE SOUTHWEST CORNER OF THIS TRACT;

THENCE NORTH 14°24'14" WEST, ALONG SAID EAST RIGHT OF WAY LINE OF SAID McKENZIE STREET, 132.00 FEET TO A REINF BAR FOUND MARKED "WPG" FOR THE NORTHWEST CORNER OF THIS TRACT;

THENCE NORTH 75°36'16" EAST 140.00 FEET TO A REINF BAR FOUND MARKED "WPG" IN SAID WEST RIGHT OF WAY LINE OF SAID 20.00' ALLEY FOR THE NORTHEAST CORNER OF THIS TRACT;

THENCE SOUTH 14°24'14" EAST, ALONG SAID WEST RIGHT OF WAY LINE OF SAID 20.00' ALLEY, 132.00 FEET TO THE PLACE OF BEGINNING.

BEARINGS AND DISTANCES SHOWN ARE BASED ON GPS OBSERVATIONS AND CONFORM TO THE "TEXAS COORDINATE SYSTEM" TEXAS CENTRAL ZONE, NORTH AMERICAN DATUM OF 1983.

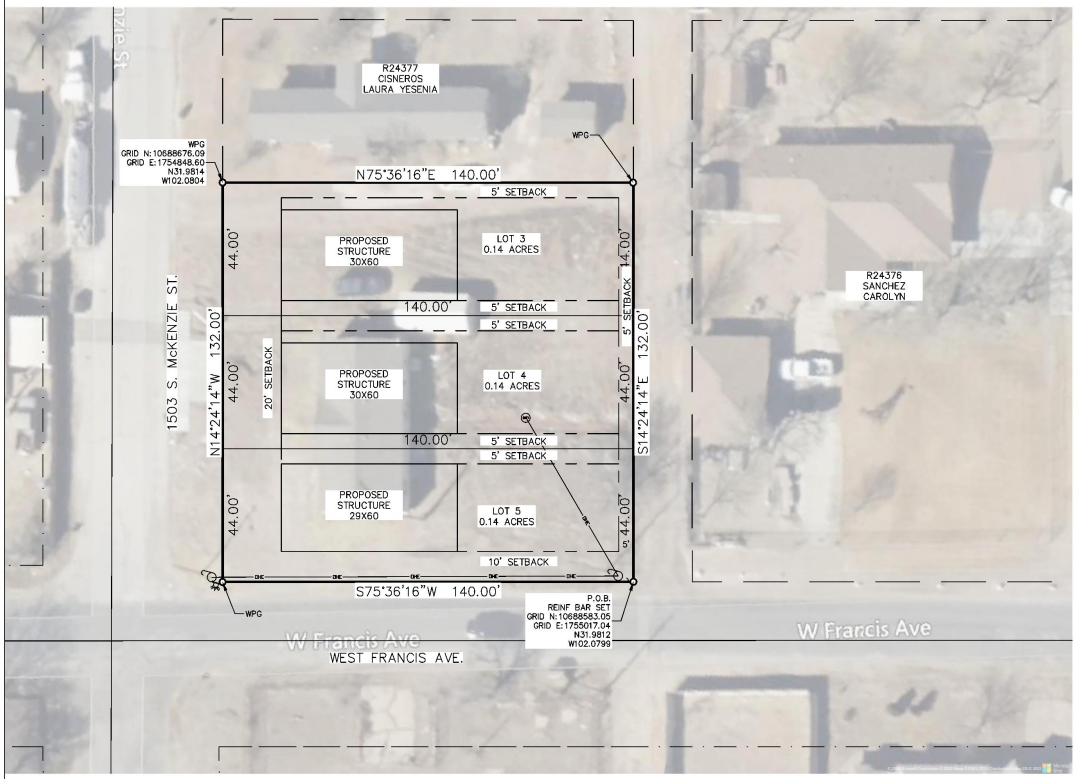


# EXHIBIT "B"

SKETCH

# HALEY HEIGHTS

BEING A REPLAT OF
0.42 ACRES IN LOT 2, BLOCK 30, HALEY HEIGHTS ADDITION,
CITY AND COUNTY OF MIDLAND, TEXAS.




STATE OF TEXAS §
COUNTY OF MIDLAND §

WHEREAS, WE ARE THE RECORD OWNER(S) OF A TRACT OF LAND SITUATED IN THE NORTHWEST CORNER OF BLOCK 30, LOT 2, HALEY HEIGHTS ADDITION, MIDLAND COUNTY, TEXAS, AND MORE PARTICULARLY DESCRIBED HEREON.

FIELD NOTE DESCRIPTION OF A 0.42 ACRE TRACT OF LAND, OF LOT 2, BLOCK 30, HALEY HEIGHTS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS. SAID 0.42 ACRE TRACT DESCRIBED MORE FULLY BY METES AND BOUNDS AS FOLLOWS:

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THENCE SOUTH 14°24'14" EAST, ALONG SAID WEST RIGHT OF WAY LINE OF SAID 20.00' ALLEY, 132.00 FEET TO THE PLACE OF BEGINNING.

BEARINGS AND DISTANCES SHOWN ARE BASED ON GPS OBSERVATIONS AND CONFORM TO THE "TEXAS COORDINATE SYSTEM" TEXAS CENTRAL ZONE, NORTH AMERICAN DATUM OF 1983.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT I DO HEREBY ADOPT THIS PLAT DESIGNATING THE HEREINABOVE DESCRIBED PROPERTY AS HALEY HEIGHTS, AN ADDITION OF 0.42 ACRES IN MIDLAND COUNTY, TEXAS, AND DO HEREBY DEDICATE TO THE PUBLIC USE FOREVER THE STREETS, ALLEY, AND EASEMENTS, (AND PARKWAYS) SHOWN HEREON.

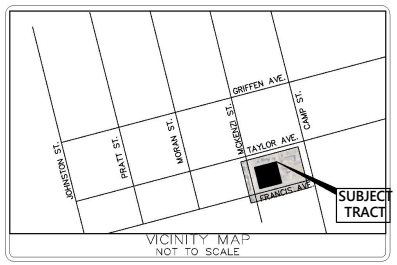
WITNESS MY HAND AT MIDLAND, TEXAS, THIS ____ DAY OF _____, 2023.

_____
CARL ENGLESTAD

STATE OF TEXAS §
COUNTY OF MIDLAND §

THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THIS_____DAY OF_____, 2023, BY CARL ENGLESTAD .

_____
NOTARY PUBLIC
MIDLAND COUNTY, TEXAS




VICINITY MAP
NOT TO SCALE

LEGEND:

- MONUMENT AS DESCRIBED
- PROPERTY LINE
- ADJOINING PROPERTIES
- SECTION LINE
- UTILITY EASEMENT
- OHE — OVERHEAD ELECTRIC
- UTILITY POLE
- ELECTRIC METER
- FIRE HYDRANT

CERTIFICATE OF APPROVAL

FOR APPROVAL BY THE DIRECTOR OF DEVELOPMENT SERVICES:

THIS IS TO CERTIFY THAT THE ABOVE AND FOREGOING PLAT OF HALEY HEIGHTS, WAS APPROVED BY PROPER ACTION OF THE CITY PLANNING AND ZONING COMMISSION OF THE CITY OF MIDLAND, ON THIS ___ DAY OF _____, 2023.

SIGNED: _____
CHAIRMAN LUCY SISNIEGA

ATTEST: _____
SECRETARY JEFF FISHER

THIS PLAT HAS BEEN CHECKED FOR ACCESSIBILITY OF UTILITIES:

SIGNED: _____
ONCOR ELECTRIC DELIVER COMPANY

SIGNED: _____
AT&T TEXAS

SIGNED: _____
ATMOS ENERGY

SIGNED: _____
OPTIMUM COMMUNICATIONS

SIGNED: _____
ASTOUND COMMUNICATIONS

NOTES:

1. BEARINGS, DISTANCES AND ACREAGE SHOWN ARE BASED ON GPS OBSERVATIONS AND CONFORM TO THE "TEXAS COORDINATE SYSTEM" TEXAS CENTRAL ZONE, NORTH AMERICAN DATUM OF 1983.

2. MONUMENTS ARE A 1/2 INCH REINFORCING BAR SET WITH YELLOW PLASTIC CAP STAMPED "SCHUMANN ENGINEERING" UNLESS OTHERWISE NOTED.

3. SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS MAY BE A VIOLATION OF CITY ORDINANCE AND STATE LAW AND SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.

4. APPROVAL OF A SITE PLAN BY THE CITY OF MIDLAND MAY BE REQUIRED BEFORE THE DEVELOPMENT OF ANY LOT AND BEFORE A BUILDING PERMIT MAY BE OBTAINED.

5. INITIAL IMPACT FEES WILL BE ASSESSED DURING THE FINAL PLATTING PROCESS. IMPLEMENTATION AND COLLECTION OF IMPACT FEES WILL TAKE PLACE DURING THE BUILDING PERMIT PROCESS. ADDITIONAL IMPACT FEES OR INCREASE OF FEES MAY NOT BE ASSESSED AGAINST THE TRACT UNLESS THE NUMBER OF SERVICE UNITS TO BE DEVELOPED ON THE TRACT INCREASES.

6. THE INSTALLATION OF PUBLIC IMPROVEMENTS MAY BE REQUIRED BY THE CITY OF MIDLAND AS SUCH TIME AS: (1) ANY LOT IS RE-PLATTED FOR SUBDIVISION INTO MORE THAN ONE TRACT OR (2) THE PROPERTY IS REZONED FOR A MORE INTENSIVE USE.

7. THIS PROPERTY IS IN FEMA PANEL 48329C0202F WITH AN EFFECTIVE DATE OF SEPTEMBER 16, 2005. PROPERTY IS IN ZONE "X" ACCORDING TO THIS PANEL.

8. ANY PERSON WHO DESIRES TO ERECT A NEW STRUCTURE OR REBUILD, REPLACE OR ENLARGE AN EXISTING STRUCTURE, ESTABLISH A NEW USE OR SUBSTANTIALLY CHANGE AN EXISTING USE IN THE AOZ-4 MUST APPLY FOR AND RECEIVE A PERMIT. A PERMIT SHALL BE GRANTED UNLESS THE NEW STRUCTURE OR THE NEW USE WOULD BE A HEIGHT HAZARD OR A PROHIBITED LAND USE AS SET FORTH IN SECTIONS 11-11-8, 11-11-9, AND TABLE 1 OF THIS CHAPTER OR WOULD OTHERWISE VIOLATE THIS CHAPTER. APPLICATIONS FOR PERMITS SHALL BE SUBMITTED TO AND ISSUED BY THE CITY OF MIDLAND BUILDING OFFICIAL.

CARL ENGLESTAD
4900 SPY GLASS
MIDLAND, TX 79705

THAT I, RJ DAUM, A REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT I PREPARED THIS PLAT FROM AN ACTUAL AND ACCURATE SURVEY OF THE LAND AND THAT THE CORNER MONUMENTS SHOWN THEREON WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION, IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS OF THE CITY OF MIDLAND, TEXAS.

"PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT".

STATE OF TEXAS
RJ DAUM
4826
REGISTERED PROFESSIONAL LAND SURVEYOR

RJ DAUM
TEXAS RPLS 4826

GRAPHIC SCALE
0 30 60
(1 INCH = 30' FEET)

PLAT FILED FOR RECORD
MIDLAND COUNTY, TEXAS
NO. _____ CABINET _____
DATE _____ PAGE _____

| NO. | DATE | DESCRIPTION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

DRAWN BY: JG DATE: 07/24/2023
CHECKED BY: ED/RJ PROJECT NO.: 79699
JOB NO.: 79,699 SHEET: 1 OF 1

SCHUMANN
ENGINEERING, INC.
A LATERAL LAND COMPANY
800 N. MARIENFELD STREET
SUITE 100
MIDLAND, TEXAS 79701
TEXAS FIRM No. 10148500
Office (432) 684-5548

HALEY HEIGHTS ADDITION

FIELD NOTE DESCRIPTION OF A 0.42 ACRE TRACT OF LAND IN LOT 2, BLOCK 30, HALEY HEIGHTS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS. SAID 0.42 ACRE TRACT DESCRIBED MORE FULLY BY METES AND BOUNDS AS FOLLOWS:

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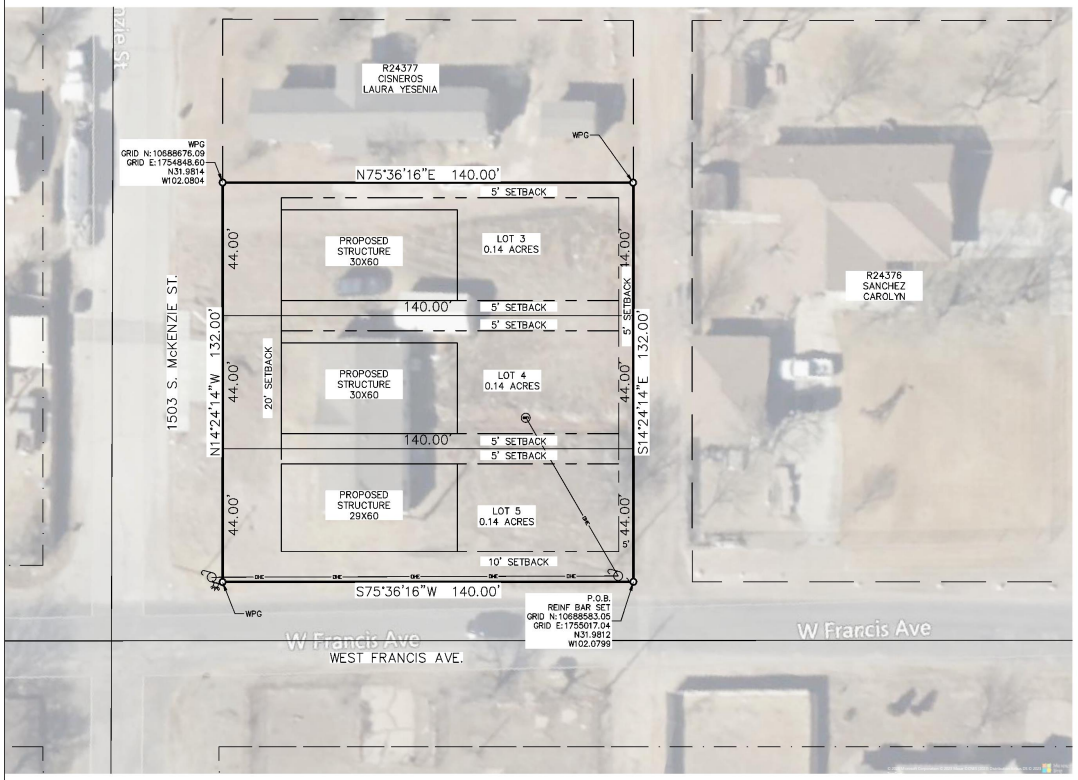
SKETCH

# HALEY HEIGHTS

BEING A REPLAT OF

0.42 ACRES IN LOT 2, BLOCK 30, HALEY HEIGHTS ADDITION,

CITY AND COUNTY OF MIDLAND, TEXAS.




STATE OF TEXAS §
COUNTY OF MIDLAND §

WHEREAS, WE ARE THE RECORD OWNER(S) OF A TRACT OF LAND SITUATED IN THE NORTHWEST CORNER OF BLOCK 30, LOT 2, HALEY HEIGHTS ADDITION, MIDLAND COUNTY, TEXAS, AND MORE PARTICULARLY DESCRIBED HEREON.

FIELD NOTE DESCRIPTION OF A 0.42 ACRE TRACT OF LAND, OF LOT 2, BLOCK 30, HALEY HEIGHTS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS. SAID 0.42 ACRE TRACT DESCRIBED MORE FULLY BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A REINF BAR SET (N:10688583.05, E:1755017.04) IN THE NORTH RIGHT OF WAY LINE OF WEST FRANCIS AVENUE AND IN THE WEST LINE OF A 20.00' ALLEY FOR THE SOUTHEAST CORNER OF THIS TRACT, ALSO BEING THE SOUTHEAST BLOCK CORNER OF SAID BLOCK 30, OF SAID HALEY HEIGHTS ADDITION, AN ADDITION TO THE CITY OF MIDLAND, MIDLAND COUNTY TEXAS, AS PER THE MAP OF PLAT RECORDED IN THE OFFICE OF THE COUNTY CLERK OF MIDLAND COUNTY;

THENCE SOUTH 75°33'16" WEST, ALONG SAID NORTH RIGHT OF WAY LINE OF SAID WEST FRANCIS AVENUE, 140.00 FEET TO A REINF BAR FOUND MARKED "WPG" IN SAID NORTH RIGHT OF WAY LINE OF SAID WEST FRANCIS AVENUE AND IN THE EAST RIGHT OF WAY LINE OF McKENZIE STREET FOR THE SOUTHWEST CORNER OF THIS TRACT;

THENCE NORTH 14°24'14" WEST, ALONG SAID EAST RIGHT OF WAY LINE OF SAID McKENZIE STREET, 132.00 FEET TO A REINF BAR FOUND MARKED "WPG" FOR THE NORTHWEST CORNER OF THIS TRACT;

THENCE NORTH 75°36'16" EAST 140.00 FEET TO A REINF BAR FOUND MARKED "WPG" IN SAID WEST RIGHT OF WAY LINE OF SAID 20.00' ALLEY FOR THE NORTHEAST CORNER OF THIS TRACT;

THENCE SOUTH 14°24'14" EAST, ALONG SAID WEST RIGHT OF WAY LINE OF SAID 20.00' ALLEY, 132.00 FEET TO THE PLACE OF BEGINNING.

BEARINGS AND DISTANCES SHOWN ARE BASED ON GPS OBSERVATIONS AND CONFORM TO THE "TEXAS COORDINATE SYSTEM" TEXAS CENTRAL ZONE, NORTH AMERICAN DATUM OF 1983.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT I DO HEREBY ADOPT THIS PLAT DESIGNATING THE HEREINABOVE DESCRIBED PROPERTY AS HALEY HEIGHTS, AN ADDITION OF 0.42 ACRES IN MIDLAND COUNTY, TEXAS, AND DO HEREBY DEDICATE TO THE PUBLIC USE FOREVER THE STREETS, ALLEY, AND EASEMENTS, (AND PARKWAYS) SHOWN HEREON.

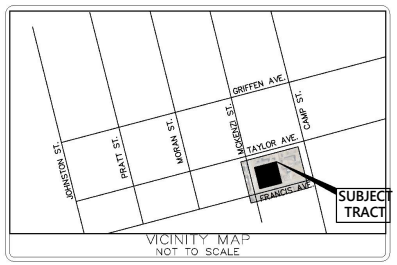
WITNESS MY HAND AT MIDLAND, TEXAS, THIS ____ DAY OF _____, 2023.

_____
CARL ENGLESTAD

STATE OF TEXAS §
COUNTY OF MIDLAND §

THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THIS_____DAY OF_____, 2023, BY CARL ENGLESTAD .

_____
NOTARY PUBLIC
MIDLAND COUNTY, TEXAS




VICINITY MAP
NOT TO SCALE

LEGEND:

- MONUMENT AS DESCRIBED
- PROPERTY LINE
- ADJOINING PROPERTIES
- SECTION LINE
- UTILITY EASEMENT
- OHE — OVERHEAD ELECTRIC
- UTILITY POLE
- ELECTRIC METER
- FIRE HYDRANT

CERTIFICATE OF APPROVAL

FOR APPROVAL BY THE DIRECTOR OF DEVELOPMENT SERVICES:

THIS IS TO CERTIFY THAT THE ABOVE AND FOREGOING PLAT OF HALEY HEIGHTS, WAS APPROVED BY PROPER ACTION OF THE CITY PLANNING AND ZONING COMMISSION OF THE CITY OF MIDLAND, ON THIS ___ DAY OF _____, 2023.

SIGNED: _____
CHAIRMAN LUCY SISNIEGA

ATTEST: _____
SECRETARY JEFF FISHER

THIS PLAT HAS BEEN CHECKED FOR ACCESSIBILITY OF UTILITIES:

SIGNED: _____
ONCOR ELECTRIC DELIVER COMPANY

SIGNED: _____
AT&T TEXAS

SIGNED: _____
ATMOS ENERGY

SIGNED: _____
OPTIMUM COMMUNICATIONS

SIGNED: _____
ASTOUND COMMUNICATIONS

NOTES:

1. BEARINGS, DISTANCES AND ACREAGE SHOWN ARE BASED ON GPS OBSERVATIONS AND CONFORM TO THE "TEXAS COORDINATE SYSTEM" TEXAS CENTRAL ZONE, NORTH AMERICAN DATUM OF 1983.

2. MONUMENTS ARE A 1/2 INCH REINFORCING BAR SET WITH YELLOW PLASTIC CAP STAMPED "SCHUMANN ENGINEERING" UNLESS OTHERWISE NOTED.

3. SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS MAY BE A VIOLATION OF CITY ORDINANCE AND STATE LAW AND SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.

4. APPROVAL OF A SITE PLAN BY THE CITY OF MIDLAND MAY BE REQUIRED BEFORE THE DEVELOPMENT OF ANY LOT AND BEFORE A BUILDING PERMIT MAY BE OBTAINED.

5. INITIAL IMPACT FEES WILL BE ASSESSED DURING THE FINAL PLATTING PROCESS. IMPLEMENTATION AND COLLECTION OF IMPACT FEES WILL TAKE PLACE DURING THE BUILDING PERMIT PROCESS. ADDITIONAL IMPACT FEES OR INCREASE OF FEES MAY NOT BE ASSESSED AGAINST THE TRACT UNLESS THE NUMBER OF SERVICE UNITS TO BE DEVELOPED ON THE TRACT INCREASES.

6. THE INSTALLATION OF PUBLIC IMPROVEMENTS MAY BE REQUIRED BY THE CITY OF MIDLAND AS SUCH TIME AS: (1) ANY LOT IS RE-PLATTED FOR SUBDIVISION INTO MORE THAN ONE TRACT OR (2) THE PROPERTY IS REZONED FOR A MORE INTENSIVE USE.

7. THIS PROPERTY IS IN FEMA PANEL 48329C0202F WITH AN EFFECTIVE DATE OF SEPTEMBER 16, 2005. PROPERTY IS IN ZONE "X" ACCORDING TO THIS PANEL.

8. ANY PERSON WHO DESIRES TO ERECT A NEW STRUCTURE OR REBUILD, REPLACE OR ENLARGE AN EXISTING STRUCTURE, ESTABLISH A NEW USE OR SUBSTANTIALLY CHANGE AN EXISTING USE IN THE AOZ-4 MUST APPLY FOR AND RECEIVE A PERMIT. A PERMIT SHALL BE GRANTED UNLESS THE NEW STRUCTURE OR THE NEW USE WOULD BE A HEIGHT HAZARD OR A PROHIBITED LAND USE AS SET FORTH IN SECTIONS 11-11-8, 11-11-9, AND TABLE 1 OF THIS CHAPTER OR WOULD OTHERWISE VIOLATE THIS CHAPTER. APPLICATIONS FOR PERMITS SHALL BE SUBMITTED TO AND ISSUED BY THE CITY OF MIDLAND BUILDING OFFICIAL.

CARL ENGLESTAD
4900 SPY GLASS
MIDLAND, TX 79705

THAT I, RJ DAUM, A REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT I PREPARED THIS PLAT FROM AN ACTUAL AND ACCURATE SURVEY OF THE LAND AND THAT THE CORNER MONUMENTS SHOWN THEREON WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION, IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS OF THE CITY OF MIDLAND, TEXAS.

"PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT".

STATE OF TEXAS
RJ DAUM
4826
REGISTERED PROFESSIONAL LAND SURVEYOR

RJ DAUM
TEXAS RPLS 4826

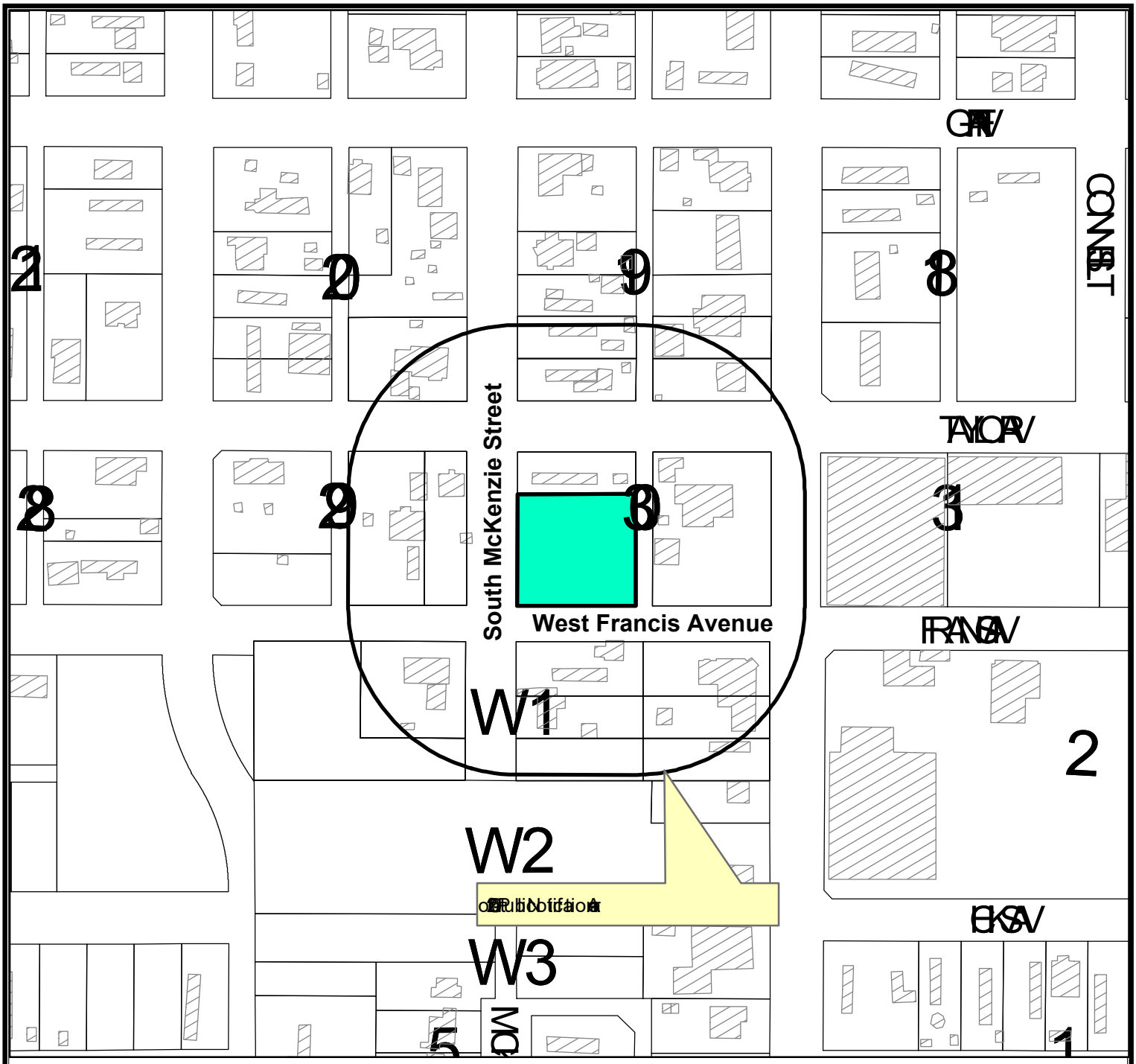
GRAPHIC SCALE
0 30 60
(1 INCH = 30' FEET)

PLAT FILED FOR RECORD
MIDLAND COUNTY, TEXAS
NO. _____ CABINET ____
DATE _____ PAGE _____

| NO. | DATE | DESCRIPTION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

DRAWN BY: JG DATE: 07/24/2023
CHECKED BY: ED/RJ PROJECT NO.: 79699
JOB NO.: 79,699 SHEET: 1 OF 1

SCHUMANN
SURVEYING, INC.
A LATERAL LAND COMPANY
800 N. MARIENFELD STREET
SUITE 100
MIDLAND, TEXAS 79701
TEXAS FIRM No. 10148500
Office (432) 684-5548




# LOCATION MAP

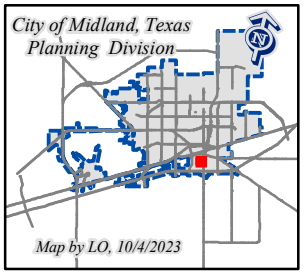
**E-23-0102** **Scale: 1" = 2,029**

Consider a request by Carl Englestad for a Special Exception from the City of Midland Zoning Ordinance, Section 5.04 – Residential Zoning District Dimensional Regulations Chart, to allow reduced minimum lot widths for interior lots and a corner lot in the MH, Manufactured Housing District on a 0.42-acre tract of land out of Lot 2, Block 30, Haley Heights Addition, City and County of Midland, Texas.

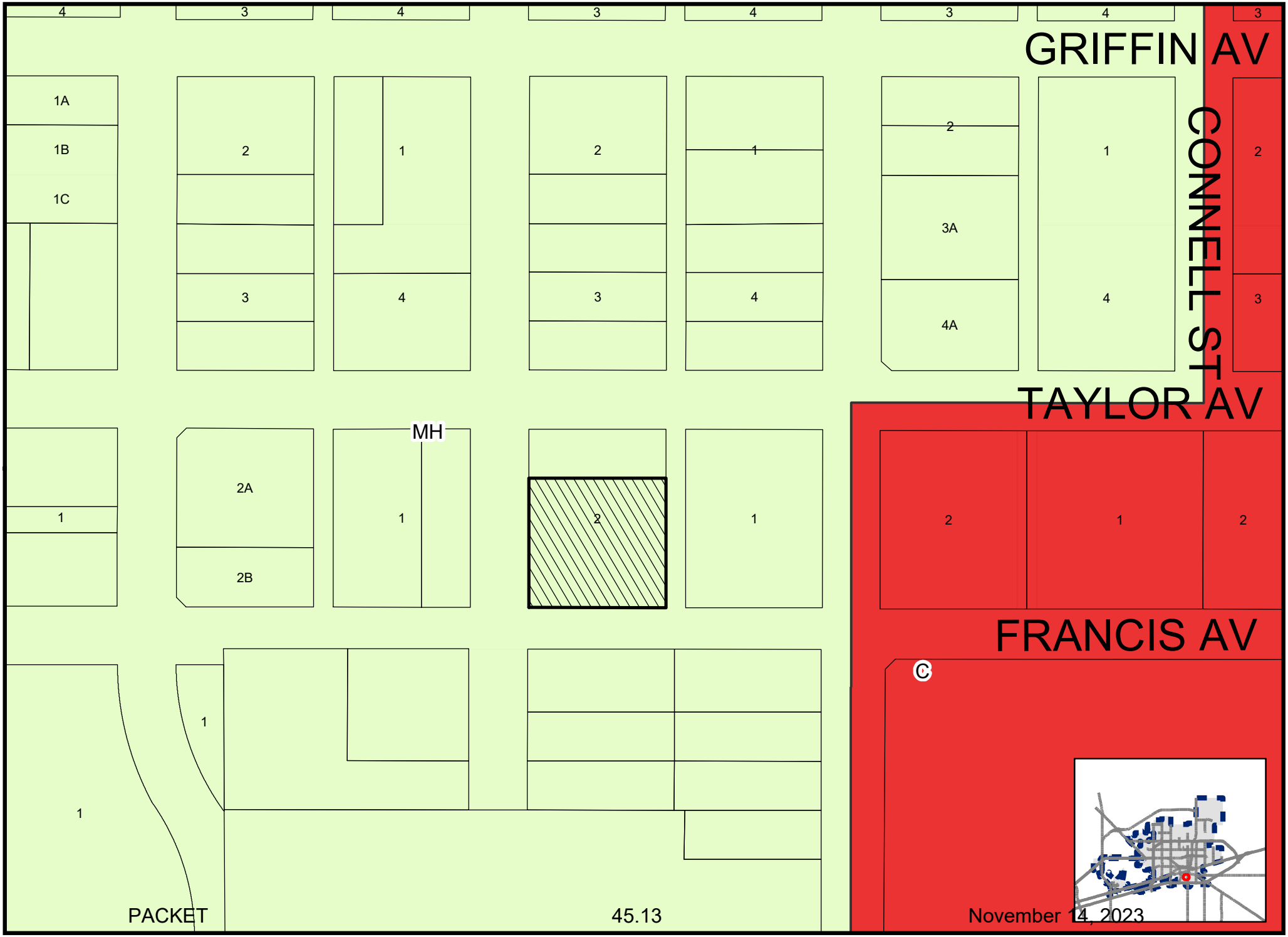
Generally located at the northeast corner of the intersection of South McKenzie Street and West Francis Avenue (Council District 2)

**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




©THE CITY OF MIDLAND - 2021
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.




*Map By DH, 10/13/2023*

**E-23-0102**

**Scale: 1" = 1,474'**

# ZONING MAP

© THE CITY OF MIDLAND - 2021: THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT, NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN. THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.

MIDLAND
Planning Division

**Special Exception Application**

Project Number: _____

Case Number: E-23-0102

| **Applicant** *(if acting as Agent, see affidavit on page 2)* Printed Name: CARL ENGLESTAD | | Phone (432) 664.2355 Email CARLENGlestad@gmail.com | |
|---|---|---|---|
| Address 4900 SPY GLASS CIRCLE | City MIDLAND | State TX | Zip 79705 |

| **Property Owner** Printed Name: SAME | | Phone ( ) Email CARLENGlestad@gmail.com | |
|---|---|---|---|
| Address | City | State | Zip |

| **Representative** *(if different from Applicant or Property Owner)* Firm: _____ Printed Name: | | Phone ( ) Email | |
|---|---|---|---|
| Address | City | State | Zip |

**Street Address:** 1503 S McKENZIE ST

**Legal Description** LOT 8 002 LESS 50X140

Lot: 002 LESS 50X14 Block: 030 Subdivision: 1 ADDITION HALEY HEIGHTS IN N/W CORNER

**Current Zoning:** MH

**This property qualifies as an exception to the City Code because:**

- ☐ It is an expansion of a nonconforming use.
- ☑ There are existing nonconforming structures in the area.
- ☑ The addition of architectural or other projections of a minor extent.

**Reason for Request:** TO ADD 1 MORE MANUFACTURED HOME LOT which would ALLOW AFFORDABLE HOUSING AND ADD ADDITIONAL TAX BASE to CITY through TAXES, WATER, SEWER, TRASH ASKING FOR 3 LOTS

**Submittal and Fees**

**Items to be submitted with this application form:**

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Site Plan showing:
  - Parking
  - Building Footprint
- Digital Copies of Site Plan (PDF/JPEG)

| Signatures | |
|---|---|
| Applicant (signature): | Date: 7/13/2023 |
| Applicant (printed): CARL ENGLESTAD | |
| Property Owner (signature): | Date: 7/13/2023 |
| Property Owner (printed): CARL ENGLESTAD | |

*The Special Exception shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.*

If an agent is authorized by the property owner to file and execute the application on behalf of the property owner, the agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared Carl Englestad who, being by me duly sworn, upon oath says: That (s)he is authorized by Carl Englestad, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

Authorized Agent (*signature*)

Subscribed and sworn to before me, this 13th day of July, 20 23, to certify which witness my hand and seal of office.

VERLINDA CRAIG CASEBIER
Notary ID #7783874
My Commission Expires
May 16, 2027

Verlinda Craig Casebier

NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

**FOR OFFICE USE ONLY**

- ☑ Property Owner Authorization
- ☑ Application Fee
- ☑ Dimensioned Site Plan
- ☑ Plans in Digital Format (PDF/JPEG)

Check #_____

Received By: [signature] Date: JUL 24 2023

RECEIVED

****Application will not be considered for scheduling until reviewed by a planner.****






STOP



# City Council Meeting

**Item Number:** 46

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Landon Ochoa, Senior Planner

**Subject:** **AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR THE SOUTH 14 FEET OF LOT 16, THE ENTIRETY OF LOT 17, AND THE NORTH 10.5 FEET OF LOT 18, BLOCK 2, TEJAS TERRACE ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE WEST SIDE OF NORTH H STREET APPROXIMATELY 150 FEET SOUTH OF STANOLIND AVENUE), BY PERMITTING (1) AN INCREASED MAXIMUM NUMBER OF ACCESSORY BUILDINGS AND (2) A REDUCED MINIMUM REAR YARD SETBACK; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION (DISTRICT 3) (DEVELOPMENT SERVICES)**

---

**Purpose:**

The applicant, Dustin Van Brunt, is requesting a Special Exception from the City of Midland Zoning Ordinance, *Section 4.09 – Residential Accessory Buildings and Uses,* to all allow a rear yard setback of zero feet for an accessory structure and to allow three accessory structures instead of the maximum of two.

**Recommended City Council Action:**

Deny

**Fiscal Impact:**

No City funds are required to process this request.

**Discussion:**

The applicant is making this request to be able to place a covered patio in their backyard behind their pool. Section 4.09.A.1 requires a minimum rear yard setback of five feet. The property also has a playhouse making for a total of three accessory structures on the property. Section 4.09.A.1 allows a maximum of two accessory structures for a property of this size.

This request has been circulated to all pertinent City departments for review. Below are the departments' comments.

**Fire: (Approved)**

No comments at this time.

**Building: (Approved)**

No issues. All future structures must adhere to the 2018 International Building Codes, the 2015 International Energy Code, the 2020 NEC, the 2015 International Fire Codes, local city ordinances, zoning requirements, established setbacks, oil and gas considerations, and floodplain requirements if necessary. Code versions are subject to change depending on time of new code edition adoption in the City of Midland and date of permit application.

**Engineering: (Approved)**

No objections. [For the Applicant's information only.]

**Code Compliance: (Approved)**

No Oil and Gas issues.

**Transportation: (Approved)**

No objections. [For the Applicant's information only.]

**Planning (Denied):**

The property does not have a hardship that would warrant these exceptions. The exception for a zero rear setback is unsupported and is only being requested because of the existence of another accessory structure.

The request for the allowance of a third accessory structure is also unsupported. There is no hardship that would be caused by the removal of one of the existing accessory structures on the property.

Staff is recommending denial of this special exception, however, should it be approved, staff recommends that it be subject to conditions A and B.

**Condition:**

**A. That the minimum rear yard setback would be zero.**

**B. That the maximum number of accessory structures allowed shall be three (3).**

**Letters of Objection:**

Staff has not received any letters of objection as of November 2, 2023.

**Attachments:**

Survey (Exhibit A)
Site Plan (Exhibit B)
Application
Maps



City Manager's Office

**ORDINANCE NO. _____**

**AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR THE SOUTH 14 FEET OF LOT 16, THE ENTIRETY OF LOT 17, AND THE NORTH 10.5 FEET OF LOT 18, BLOCK 2, TEJAS TERRACE ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE WEST SIDE OF NORTH H STREET APPROXIMATELY 150 FEET SOUTH OF STANOLIND AVENUE), BY PERMITTING (1) AN INCREASED MAXIMUM NUMBER OF ACCESSORY BUILDINGS AND (2) A REDUCED MINIMUM REAR YARD SETBACK; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION**

**WHEREAS**, the City Council modified the authority of the Board of Adjustment in Title XI, Chapter 1, Section 7 ("Section 11-1-7") of the Midland City Code; and

**WHEREAS,** Section 11-1-7 provides for the consideration of requests for special exceptions to the Midland Zoning Ordinance; and

**WHEREAS,** the Council finds that satisfactory evidence has been presented that the use to be authorized by the granting of the special exception will not be detrimental to the health, safety, comfort and welfare of the occupants of the land area near the tract on which the use to be allowed by special exception will be located; and

**WHEREAS,** the Council finds that it is clearly and specifically authorized by the terms of Section 11-1-7 to grant such a special exception, and said exception will be in harmony with the general purposes and intent of the zoning provisions of the Midland City Code; and

**WHEREAS**, after a full and fair public hearing at which all parties in interest were offered an opportunity to be heard, all pursuant to law, the Council finds it to be in the public interest to grant a special exception to the Zoning Ordinance, pursuant to Section 11-1-7, for the purposes herein stated, subject to special conditions;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE**

**CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That a special exception is hereby granted for the property described as the south 14 feet of Lot 16, the entirety of Lot 17, and the north 10.5 feet of Lot 18, Block 2, Tejas Terrace Addition, City and County of Midland, Texas (the "Property"). Said special exception shall allow (1) an increased maximum number of accessory buildings and (2) a reduced minimum rear yard setback.

**SECTION TWO.** Said special exception is subject to the following special conditions:

A. That the maximum number of accessory buildings on the Property shall be three.

B. That the minimum rear yard setback shall be zero feet (0').

C. That the locations of all structures on the Property shall significantly conform to the site plan, which is attached hereto as Exhibit "A" and incorporated herein for all purposes.

**SECTION THREE.** The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION FOUR.** If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION FIVE.** The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland,

Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION SIX.** The City Secretary is hereby authorized and directed to file this ordinance with the Office of the County Clerk for purposes of recordation.

**SECTION SEVEN.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2023; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2023, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Cristina Burns, Director of Development Services

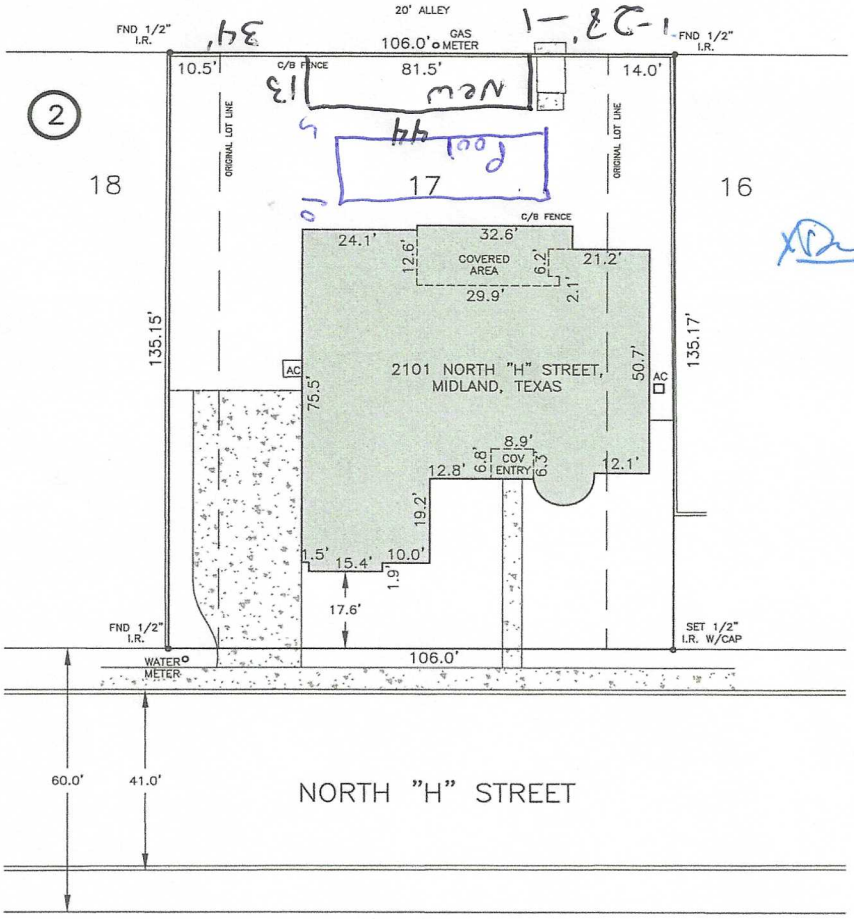
APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney


N H St
Google
11'
15
New
Proposed 3rd accessory structure
Requested 0 feet setback
Layers



**EXHIBIT "A"**




# PLAT

## OF

## THE SOUTH 14 FEET (S14') OF LOT SIXTEEN, ALL OF LOT SEVENTEEN (17), AND THE NORTH TEN AND 1/2 FEET (N/10.5') OF LOT EIGHTEEN (18), BLOCK TWO (2), TEJAS TERRACE, AN ADDITION TO THE THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

BLANKET RIGHTS-OF-WAY
VOL. 37, P. 324
VOL. 42, P. 147
VOL. 55, P. 506

30 0 30 60 90 FEET

SURVEY PLAT FOR: DUSTIN J. VAN BRUNT AND COURTNEY VAN BRUNT

TO LIEN HOLDER ISSUING THE INSURANCE UNDERWRITER AND STEWART TITLE, MIDLAND, TEXAS

THIS SURVEY PLAT IS PROVIDED SOLELY FOR THIS TRANSACTION AND G.F. 251509 AS NOTED.

PLAT IS COPYRIGHTED AND SHALL NOT BE USED FOR ANY OTHER TRANSACTION.

THE UNDERSIGNED HEREBY CERTIFIES THAT THIS SURVEY WAS MADE ON THE GROUND OF THE PROPERTY LEGALLY DESCRIBED HEREON AND IS CORRECT, AND THAT THERE ARE NO VISIBLE DISCREPANCIES, CONFLICTS, SHORTAGES IN AREA BOUNDARY LINE CONFLICTS, ENCROACHMENTS, OVERLAPPING OF IMPROVEMENTS, VISIBLE EASEMENTS OR RIGHTS OF WAY, EXCEPT AS SHOWN HEREON, AND THIS SAID PROPERTY HAS ACCESS TO AND FROM A DEDICATED ROADWAY AS SHOWN.

Michael L McBrayer

REGISTERED PROFESSIONAL LAND SURVEYOR

STATE OF TEXAS
REGISTERED
MICHAEL L. McBRAYER
4161
PROFESSIONAL
LAND SURVEYOR

FILED IN PLAT CABINET B, PAGE 149, PLAT RECORDS, MIDLAND COUNTY, TEXAS.

THIS PROPERTY LIES WITHIN ZONE "X" AS SHOWN BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FEDERAL INSURANCE ADMINISTRATION MAP COMMUNITY PANEL 48329C0088F DATED SEPTEMBER 16, 2005.

Stored: 19021225


BRADSHAW AND ASSOCIATES, INC.
CONSULTING ENGINEERS
REGISTERED PROFESSIONAL LAND SURVEYORS
FIRM # 10122900/10122901
4400 N. BIG SPRING SUITE A-8
MIDLAND, TEXAS 79705
PHONE (432)682-4400 FAX (432)682-7997


| | Drawn | Chkd | Surveyed |
|---|---|---|---|
| By | VR | MLM | GB/CH |
| Date | 3-5-2019 | 3-6-2019 | 3-4-2019 |


N H St
11'
15
New
Google
Layers
Proposed 3rd accessory structure
Requested 0 feet setback

MIDLAND Planning Division

**Special Exception Application**

Project Number: _____

Case Number: E-23-0107

| **Applicant** *(if acting as Agent, see affidavit on page 2)* Printed Name: Dustin Van Brunt | | Phone (832) 367-2112 Email dvanbrunt90@yahoo.com | |
|---|---|---|---|
| Address 2101 N. H Street | City Midland | State TX | Zip 79705 |

| **Property Owner** Printed Name: Dustin Van Brunt | | Phone (832) 367-2112 Email dvanbrunt90@yahoo.com | |
|---|---|---|---|
| Address 2101 N. H Street | City Midland | State TX | Zip 79705 |

| **Representative** *(if different from Applicant or Property Owner)* Firm: _____ Printed Name: Dustin Van Brunt | | Phone ( ) Email | |
|---|---|---|---|
| Address | City | State | Zip |

**Street Address:** 2101 N. H Street

The South 14 feet (S 14') of Lot sixteen, all of lot seventeen (17), and the North ten and 1/2 feet (N/10.5') of lot eighteen (18), Block two (2), Tejas Terrace, an addition to the City of Midland, Midland County, Texas

**Legal Description**

Lot: 18 Block: 2 Subdivision: Tejas Terrace, an addition to the city of Midland, Midland county, Texas

**Current Zoning:** Residential

**This property qualifies as an exception to the City Code because:**

- ☐ It is an expansion of a nonconforming use.
- ■ There are existing nonconforming structures in the area.
- ■ The addition of architectural or other projections of a minor extent.

**Reason for Request:** Would like to build outdoor kitchen, patio cover, and fireplace to rear property line

**Submittal and Fees**

**Items to be submitted with this application form:**

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Site Plan showing:
  - Parking
  - Building Footprint
- Digital Copies of Site Plan (PDF/JPEG)

| Signatures | |
|---|---|
| Applicant (signature): Dustin Van Brunt | Date: 9/18/23 |
| Applicant (printed): Dustin Van Brunt | |
| Property Owner (signature): Dustin Van Brunt | Date: 9/18/23 |
| Property Owner (printed) : Dustin Van Brunt | |

*The Special Exception shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.*

If an agent is authorized by the property owner to file and execute the application on behalf of the property owner, the agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared Dustin Van Brunt who, being by me duly sworn, upon oath says: That (s)he is authorized by self, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

Dustin Van Brunt
Authorized Agent (*signature*)

Subscribed and sworn to before me, this 18th day of September, 2023, to certify which witness my hand and seal of office.

JEANETTE REYES
Notary ID #130996966
My Commission Expires
February 7, 2025

NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

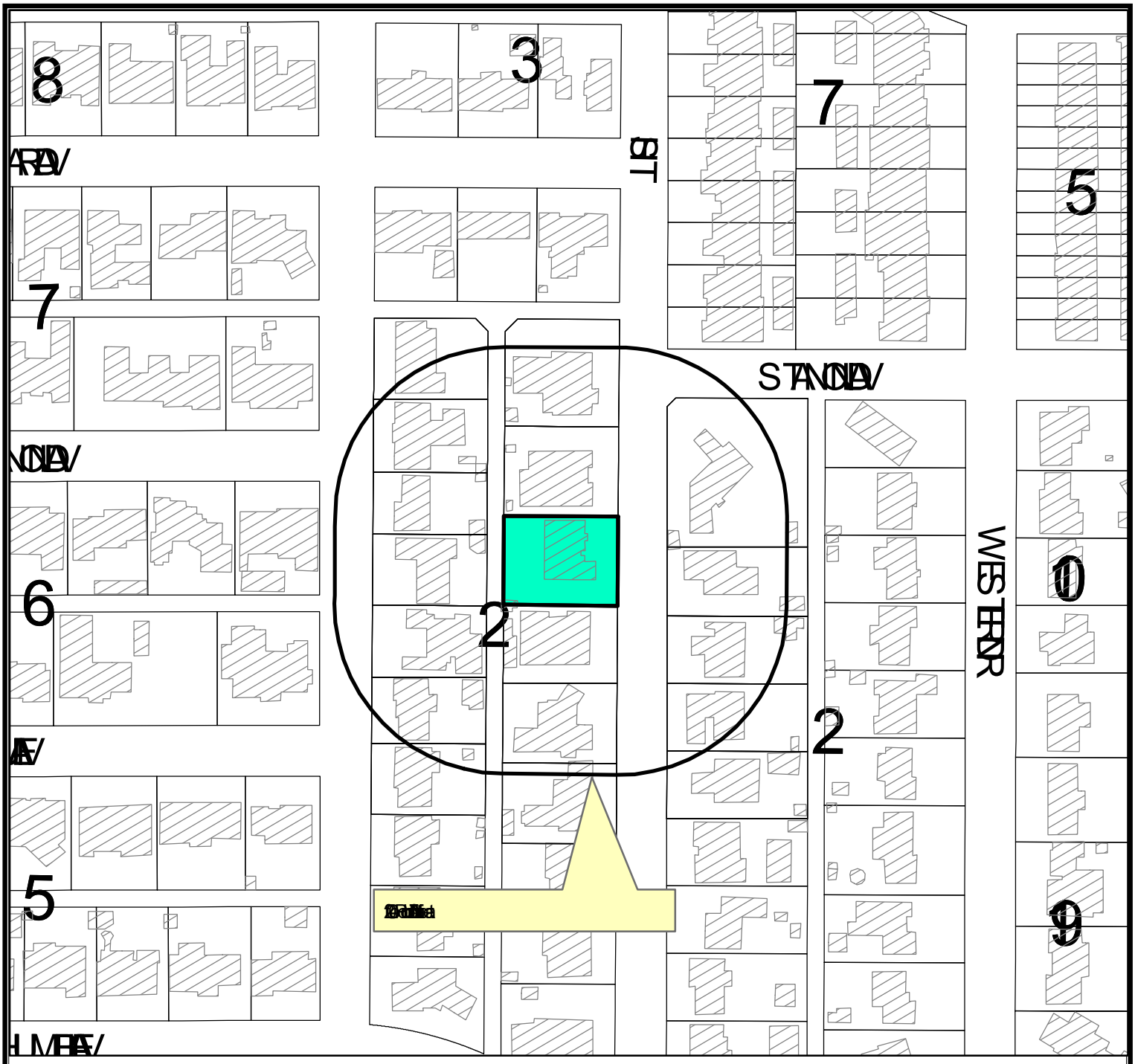
**FOR OFFICE USE ONLY**

| | |
|---|---|
| ☑ Property Owner Authorization | ☑ Dimensioned Site Plan |
| ☑ Application Fee | ☑ Plans in Digital Format (PDF/JPEG) |
| Check # 391 | |
| Received By: | Date: RECEIVED SEP 18 2023 |

BY: .....



****Application will not be considered for scheduling until reviewed by a planner.****




# LOCATION MAP

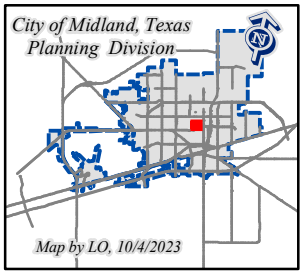
**E-23-0107** **Scale: 1" = 2,029'**

Consider a request by Dustin Van Brunt for a Special Exception from the City of Midland Zoning Ordinance, Section 4.09.A.1 – Residential Accessory Buildings and Uses to allow a reduced minimum rear yard setback for an accessory structure and to allow 3 accessory structures instead of the maximum of 2 on the south 14 feet of Lot 16, the entirety Lot 17, and the north 10.5 feet of Lot 18, Block 2, Tejas Terrace, City and County of Midland, Texas.

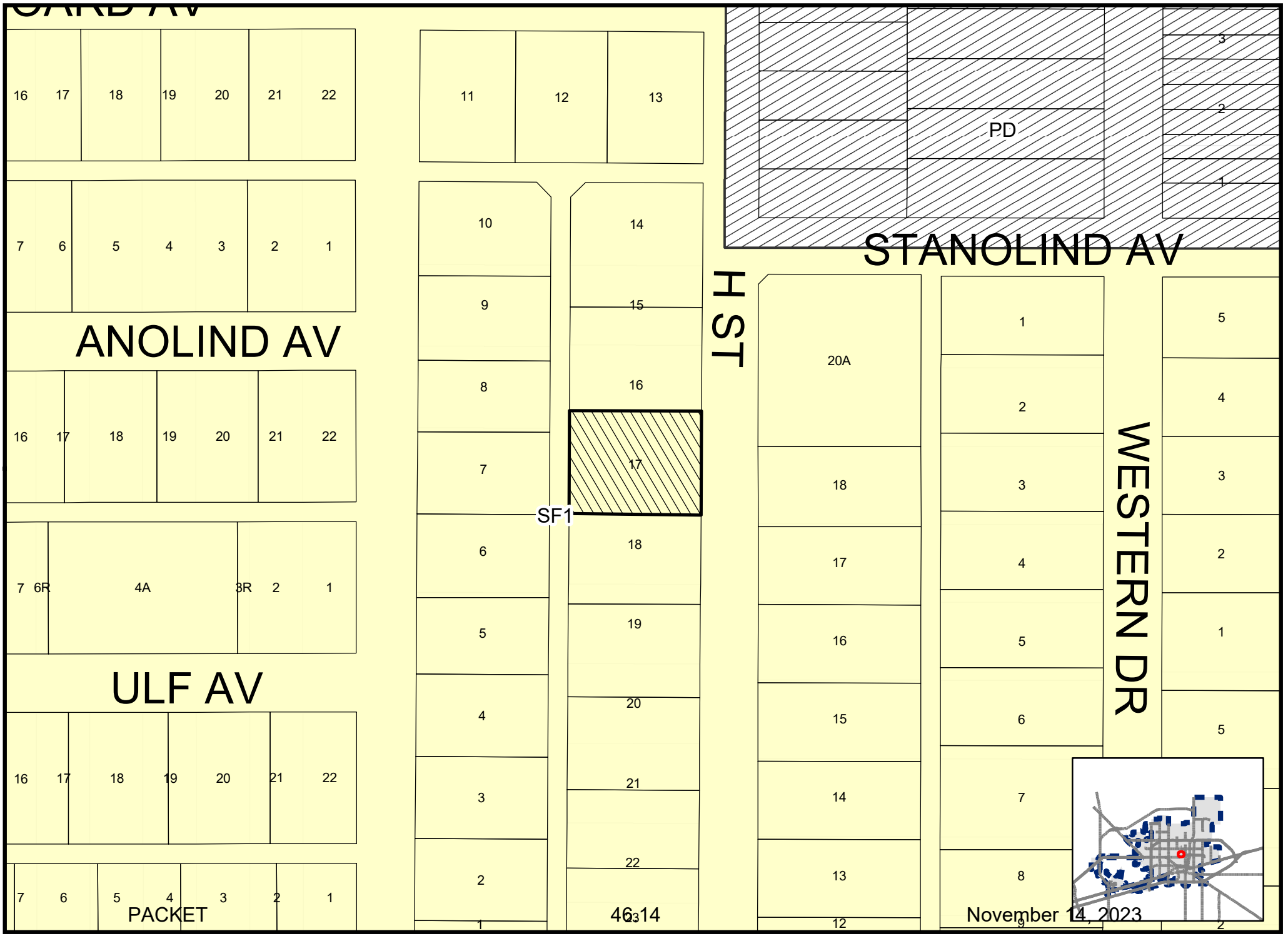
Generally located on the west side of North H Street approximately [illegible] feet south of Stanolind Avenue (Council District 3)

**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




©THE CITY OF MIDLAND - 2021
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND NOR IS IT DESIGNED TO BE USED AS THE ONLY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.




*Map By DH, 10/13/2023*

**E-23-0107**

**Scale: 1" = 4,474'**

# ZONING MAP

© THE CITY OF MIDLAND - 2021: THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT, NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN. THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.









# City Council Meeting

**Item Number:** 47

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Landon Ochoa, Senior Planner

**Subject:** AN ORDINANCE VACATING AND ABANDONING A 0.159-ACRE PORTION OF ROPE STREET RIGHT-OF-WAY LOCATED ADJACENT TO LOT 1, BLOCK 1, ADOBE MEADOWS ADDITION, SECTION 8, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE EAST SIDE OF ROPE STREET, APPROXIMATELY 435 FEET NORTH OF MOCKINGBIRD LANE); ADOPTING THE APPRAISAL BY THE ASSISTANT CITY MANAGER OF $477.00; RETAINING A NONEXCLUSIVE UTILITY EASEMENT; AND ORDERING RECORDATION BY THE CITY SECRETARY (DISTRICT: 1) (DEVELOPMENT SERVICES)

---

**Purpose:**

The applicant, Thais Ahlstrand, is requesting to vacate a 0.159-acre portion of Rope Street right-of-way located adjacent to Lot 1, Block 1, Adobe Meadows, Section 8, City and County of Midland, Texas in order to add parking to the site.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

The 2023 appraised value of the right-of-way is a total value of $477.00.

**Discussion:**

The applicant is seeking to vacate a 0.159-acre (6,947 square feet) of the Rope Street right-of-way to expand the parking and expand their property boundary to remove current improvements (parking and tower) out of the City's right-of-way that were previously allowed using a right-of-way license which will be expiring soon.

The Midland Central Appraisal District's appraisal of this land at a total of $477.00 using the formula of .159 x $3,000.

The property owner will replat Lot 1, Block 1, Adobe Meadows, Section 8 to include the .159-acre right-of-way being vacated as one lot.

This request has been circulated and reviewed by all pertinent City departments and franchise utility companies. Their comments, conditions, and requests are as follows:

**Code Compliance: (Approved)**

No oil and gas issues.

**Building Code: (Approved)**

No objections.

**Engineering: (Approved)**

No objections to vacation. Applicant shall be responsible for relocating any utilities, if existing, or providing easements as needed.

**Fire: (Approved)**

No objection to vacation request.

**Transportation: (Approved)**

No objections to vacation. Applicant shall be responsible for relocating any utilities, if existing, or providing easements as needed.

**GIS: (Approved)**

No comment

**AT&T: (Approved)**

We have no issues here.

**Atmos: (Approved)**

Atmos Energy currently has facilities located within the above-described Right of Way of Rope Street. We currently have a gas main that crosses a portion of the proposed vacate area. Atmos would have no objection to this vacation if a 10ft. gas utility easement is maintained within the existing portion where we cross.

**Astound: (Approved)**

We only have services within the apartment complex.

**Oncor: (Approved)**

Oncor has underground facilities immediately impacted by the entrance reroute. Oncor can provide a cost to the developer to adjust the location of such facilities if this projects moves forwards.

**Altice USA: (Approved)**

Optimum does not have any utilities running through the property.

**Planning:**

Pertinent City departments and franchise utility companies have reviewed this vacation request and have approved the request.

Therefore, staff recommends approval of this vacation subject to conditions A through C.

**Conditions:**

A. **That the value of the property shall be $477.00.**

B. **That an accessible nonexclusive utility easement is retained.**

C. **That a replat of the subject property is approved by the City of Midland and filed and recorded with the County Clerk of Midland County.**

**Letters of Objection:**

As of November 3, staff has not received any letters of objection to this request.

**Attachments:**

Metes & Bounds (Exhibit A)
Vacation Survey (Exhibit B)
Application
Maps
Responses from Franchise Utility Companies

Morris Williams Jr.

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE VACATING AND ABANDONING A 0.159-ACRE PORTION OF ROPE STREET RIGHT-OF-WAY LOCATED ADJACENT TO LOT 1, BLOCK 1, ADOBE MEADOWS ADDITION, SECTION 8, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE EAST SIDE OF ROPE STREET, APPROXIMATELY 435 FEET NORTH OF MOCKINGBIRD LANE); ADOPTING THE APPRAISAL BY THE ASSISTANT CITY MANAGER OF $477.00; RETAINING A NONEXCLUSIVE UTILITY EASEMENT; AND ORDERING RECORDATION BY THE CITY SECRETARY

WHEREAS, it has been determined by the Midland City Council that a 0.159-acre portion of Rope Street right-of-way located adjacent to Lot 1, Block 1, Adobe Meadows Addition, Section 8, City and County of Midland, Texas, as described in Exhibits "A" and "B" attached hereto and made a part hereof for all legal purposes (the "Property"), is no longer needed for public use; and

WHEREAS, an application for vacating the Property has been received by the City from the abutting property owner; and

WHEREAS, the Assistant City Manager has appraised the value of the City's property interest in the Property at $477.00, as shown in Exhibit "B" attached hereto and incorporated herein by reference; and

WHEREAS, Section 272.001 of the Texas Local Government Code provides that a political subdivision may not convey, sell, or exchange its interest in land without observing notice and bid requirements, unless the conveyance is to one or more abutting property owners; and

WHEREAS, the Council finds it to be in the public interest to abandon and vacate the Property;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That the Property is hereby vacated and abandoned for all public

purposes. Provided, however, that the City is hereby abandoning only the public interest in

the Property, and this ordinance in no way affects any private easement or access easement

SECTION TWO. That this ordinance shall not be effective until:

A. the City of Midland has received from the abutting property owner(s) the which abutting property owners may have in the Property.

sum

B. a replat of the Property is approved by the City of Midland and filed of $477.00; and
and

SECTION THREE. That the City herein retains an accessible nonexclusive utility recorded with the County Clerk of Midland County, Texas.

easement across, through, over, under, on and along the Property until all entities that were

using the Property for utility purposes as of the date of approval of this ordinance have

SECTION FOUR. That upon the City's receipt of the sum set forth in Section Two

abandoned their uses of the Property.

hereof, the City Secretary is hereby authorized and directed to file a certified copy of this

The above and foregoing ordinance was duly proposed, read in full and adopted on

ordinance with the County Clerk of Midland County, Texas, for purposes of recording in the

first reading, the _____ day of _____, A.D., 2023; and passed to second reading

Official Records of Midland County, Texas.

on motion of Council member _____, seconded by Council member

Council members voting "AYE":

Council members voting "NAY": _____, by the following vote:

The above and foregoing ordinance was read in full and finally adopted by the

following vote upon motion of Council member _____, seconded by

meeting of the City Council:

Council



member _____, on the _____ day of _____, A.D., 2023, at a regular

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____

Lori Merritt Blong, Mayor

ATTEST:

_____

Marcia Bentley-German, City Secretary

APPROVED AS TO CONTENT

AND COMPLETENESS:

_____

Cristina Burns, Director of Development Services

APPROVED ONLY AS TO FORM:

_____

John Ohnemiller, City Attorney

**EXHIBIT "A"**

CTLS
Cross Texas Land Services,Inc

## PROPOSED STREET VACATE

**LEGAL DESCRIPTION:** Being 0.159 acres (6,947 sq. ft.) of land, being the east half of that certain portion of Rope Street (60' wide right of way) located between Lot 14, Block 2, Adobe Meadows, Section 2, recorded in Cabinet C, Page 171, of the Plat Records of Midland County, Texas, and Lot 1, Block 1, Adobe Meadows, Section 8, recorded in Cabinet L, Page 135, of the said Plat Records; Said 0.159 acre tract being more particularly described as follows and as surveyed under the supervision of Cross Texas Land Services Inc in July/August 2023:

**BEGINNING** at a 1/2 inch iron rod set in the east right of way line of said Rope Street, for the southwest corner of Rope Street (40' wide right of way), for the most easterly northwest corner of said Lot 1, for the northeast corner hereof, from which a 1/2 inch iron rod found for the northeast corner of said Lot 1 bears North 75°39'25" East, a distance of 416.87 feet;

THENCE along the east right of way of said Rope Street (60') and the upper west line of said Lot 1, and along a curve to the left with a radius of 190.44 feet, an arc length of 72.82 feet, and a chord bearing and distance of South 33°46'14" East, 72.37 feet to a "X" marked in concrete found in the east right of way of said Rope Street (60') and the upper west line of said Lot 1, for an angle point in the east line hereof;

THENCE along the east right of way of said Rope Street (60') and the upper west line of said Lot 1, and along a curve to the right with a radius of 528.93 feet, an arc length of 158.77 feet, and a chord bearing and distance of South 36°06'48" East, 158.18 feet the southeast corner of said Rope Street (60'), an ell corner of said Lot 1, for the southeast corner hereof;

THENCE South 75°34'44" West, along the south line of said Rope Street (60') and the lower north line of said Lot 1, a distance of 30.85 feet to a 1/2 inch iron rod set in the center of the south line of said Rope Street (60') and in the lower north line of said Lot 1, for the southwest corner hereof, from which a 1/2 inch iron rod with cap marked "Maverick" found in the lower north line of said Lot 1, for the southwest corner of said Rope Street (60') bears South 75°34'44" West, a distance of 30.88 feet;

THENCE along the centerline of said Rope Street (60') and along a curve to the left with a radius of 498.93 feet, an arc length of 142.77 feet, and a chord bearing and distance of

North 36°30'52" West, 142.29 feet to a 1/2 inch iron rod set in the centerline of said Rope Street (60'), for an angle point in the west line hereof;

THENCE along the centerline of said Rope Street (60') and along a curve to the right with a radius of 220.44 feet, an arc length of 88.75 feet, and a chord bearing and distance of North 33°11'25" West, 88.15 feet to a "X" marked in concrete set in the centerline of said Rope Street (60'), for the northwest corner hereof, from which a 1/2 inch iron rod set in the east line of said Lot 14, in the west line of said Rope Street (60') bears North 75°39'25" West, a distance of 30.14 feet;

THENCE North 75°39'25" East, crossing said Rope Street and along the same bearing of a line extension of the most northerly north line of said Lot 1, a distance of 30.29 feet to the POINT OF BEGINNING, and containing 0.159 acres, more or less, and as shown on the certified plat herewith.

Note: Bearings, distances and acreage shown hereon are NAD 83, Texas Central Zone and are derived from GPS techniques. Iron Rod set are 1/2-inch rod with plastic caps marked "CTLS".

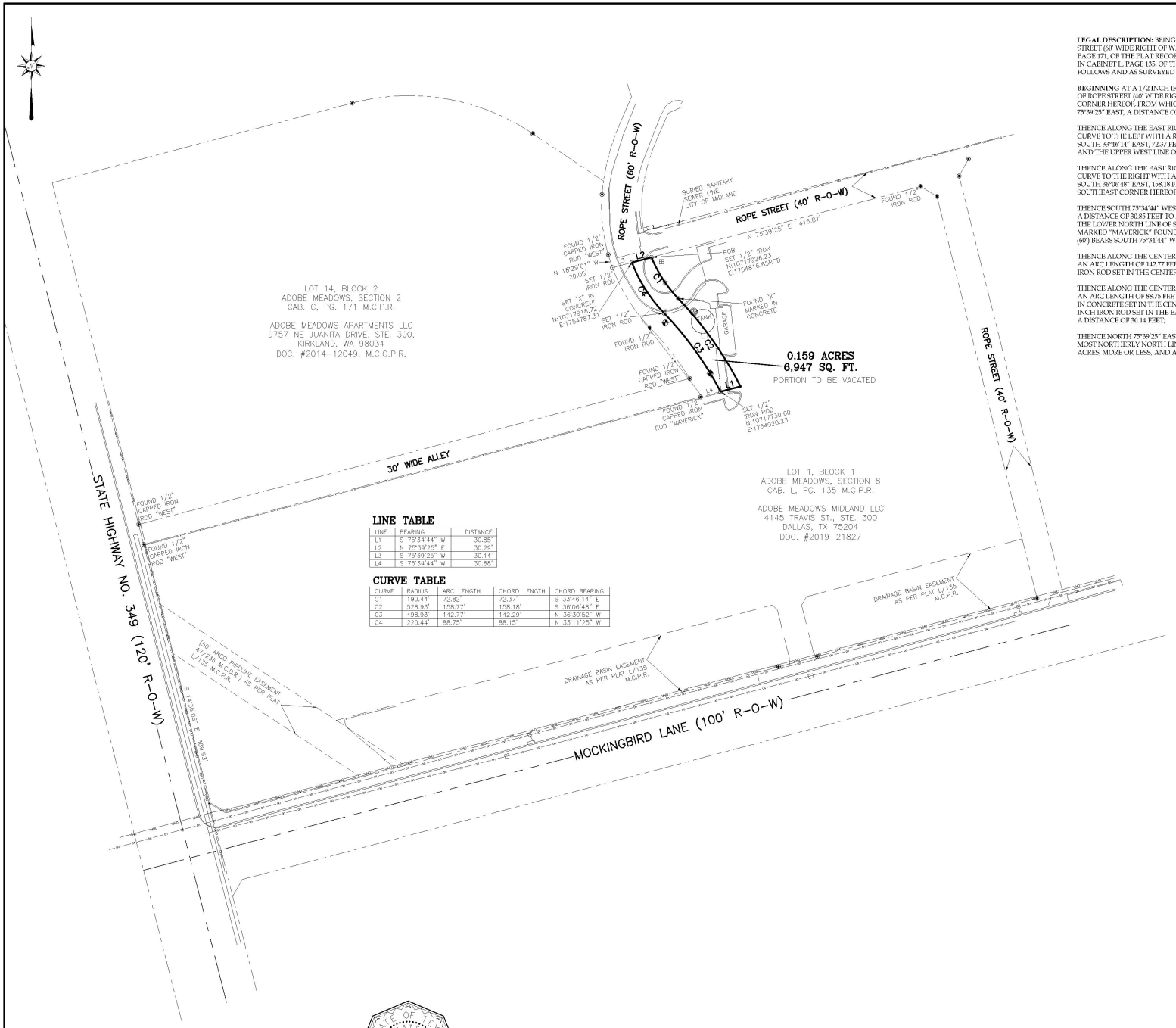
Surveyed by:




August 28, 2023

Thais Watson Ahlstrand, R.P.L.S. #6359
702 Rio Grande, Ste. #301, Austin, TX 78701 – (512-965-2878)
Firm#100248-00
Job#23-50122

# EXHIBIT "B"




**LINE TABLE**

| LINE | BEARING | DISTANCE |
|---|---|---|
| L1 | S 75°34'44" W | 30.85' |
| L2 | N 75°39'25" E | 30.29' |
| L3 | S 75°39'25" W | 30.14' |
| L4 | S 75°34'44" W | 30.88' |

**CURVE TABLE**

| CURVE | RADIUS | ARC LENGTH | CHORD LENGTH | CHORD BEARING |
|---|---|---|---|---|
| C1 | 190.44' | 72.82' | 72.37' | S 33°46'14" E |
| C2 | 528.93' | 158.77' | 158.18' | S 36°06'48" E |
| C3 | 498.93' | 142.77' | 142.29' | N 36°30'52" W |
| C4 | 220.44' | 88.75' | 88.15' | N 33°11'25" W |

**LEGAL DESCRIPTION:** BEING 0.159 ACRES (6,947 SQ. FT.) OF LAND, BEING THE EAST HALF OF THAT CERTAIN PORTION OF ROPE STREET (60' WIDE RIGHT OF WAY) LOCATED BETWEEN LOT 14, BLOCK 2, ADOBE MEADOWS, SECTION 2, RECORDED IN CABINET C, PAGE 171, OF THE PLAT RECORDS OF MIDLAND COUNTY, TEXAS, AND LOT 1, BLOCK 1, ADOBE MEADOWS, SECTION 8, RECORDED IN CABINET L, PAGE 135, OF THE SAID PLAT RECORDS; SAID 0.159 ACRE TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS AND AS SURVEYED UNDER THE SUPERVISION OF CROSS TEXAS LAND SERVICES INC IN JULY/ AUGUST 2023:

**BEGINNING** AT A 1/2 INCH IRON ROD SET IN THE EAST RIGHT OF WAY LINE OF SAID ROPE STREET, FOR THE SOUTHWEST CORNER OF ROPE STREET (40' WIDE RIGHT OF WAY), FOR THE MOST EASTERLY NORTHWEST CORNER OF SAID LOT 1, FOR THE NORTHEAST CORNER HEREOF; FROM WHICH A 1/2 INCH IRON ROD FOUND FOR THE NORTHEAST CORNER OF SAID LOT 1 BEARS NORTH 75°39'25" EAST, A DISTANCE OF 416.87 FEET;

THENCE ALONG THE EAST RIGHT OF WAY OF SAID ROPE STREET (60') AND THE UPPER WEST LINE OF SAID LOT 1, AND ALONG A CURVE TO THE LEFT WITH A RADIUS OF 190.44 FEET, AN ARC LENGTH OF 72.82 FEET, AND A CHORD BEARING AND DISTANCE OF SOUTH 33°46'14" EAST, 72.37 FEET TO A "X" MARKED IN CONCRETE FOUND IN THE EAST RIGHT OF WAY OF SAID ROPE STREET (60') AND THE UPPER WEST LINE OF SAID LOT 1, FOR AN ANGLE POINT IN THE EAST LINE HEREOF;

THENCE ALONG THE EAST RIGHT OF WAY OF SAID ROPE STREET (60') AND THE UPPER WEST LINE OF SAID LOT 1, AND ALONG A CURVE TO THE RIGHT WITH A RADIUS OF 528.93 FEET, AN ARC LENGTH OF 158.77 FEET, AND A CHORD BEARING AND DISTANCE OF SOUTH 36°06'48" EAST, 158.18 FEET THE SOUTHEAST CORNER OF SAID ROPE STREET (60'), AN ELL CORNER OF SAID LOT 1, FOR THE SOUTHEAST CORNER HEREOF;

THENCE SOUTH 75°34'44" WEST, ALONG THE SOUTH LINE OF SAID ROPE STREET (60') AND THE LOWER NORTH LINE OF SAID LOT 1, A DISTANCE OF 30.85 FEET TO A 1/2 INCH IRON ROD SET IN THE CENTER OF THE SOUTH LINE OF SAID ROPE STREET (60') AND IN THE LOWER NORTH LINE OF SAID LOT 1, FOR THE SOUTHWEST CORNER HEREOF, FROM WHICH A 1/2 INCH IRON ROD WITH CAP MARKED "MAVERICK" FOUND IN THE LOWER NORTH LINE OF SAID LOT 1, FOR THE SOUTHWEST CORNER OF SAID ROPE STREET (60') BEARS SOUTH 75°34'44" WEST, A DISTANCE OF 30.88 FEET;

THENCE ALONG THE CENTERLINE OF SAID ROPE STREET (60') AND ALONG A CURVE TO THE LEFT WITH A RADIUS OF 498.93 FEET, AN ARC LENGTH OF 142.77 FEET, AND A CHORD BEARING AND DISTANCE OF NORTH 36°30'52" WEST, 142.29 FEET TO A 1/2 INCH IRON ROD SET IN THE CENTERLINE OF SAID ROPE STREET (60'), FOR AN ANGLE POINT IN THE WEST LINE HEREOF;

THENCE ALONG THE CENTERLINE OF SAID ROPE STREET (60') AND ALONG A CURVE TO THE RIGHT WITH A RADIUS OF 220.44 FEET, AN ARC LENGTH OF 88.75 FEET, AND A CHORD BEARING AND DISTANCE OF NORTH 33°11'25" WEST, 88.15 FEET TO A "X" MARKED IN CONCRETE SET IN THE CENTERLINE OF SAID ROPE STREET (60'), FOR THE NORTHWEST CORNER HEREOF, FROM WHICH A 1/2 INCH IRON ROD SET IN THE EAST LINE OF SAID LOT 14, IN THE WEST LINE OF SAID ROPE STREET (60') BEARS NORTH 75°39'25" WEST, A DISTANCE OF 30.14 FEET;

THENCE NORTH 75°39'25" EAST, CROSSING SAID ROPE STREET AND ALONG THE SAME BEARING OF A LINE EXTENSION OF THE MOST NORTHERLY NORTH LINE OF SAID LOT 1, A DISTANCE OF 30.29 FEET TO THE POINT OF BEGINNING, AND CONTAINING 0.159 ACRES, MORE OR LESS, AND AS SHOWN HEREON.


CTLS
Cross Texas Land Services, LLC
702 RIO GRANDE, #301, AUSTIN, TX 78701
512-965-2878
TX. FIRM REG. #100248-00
www.crosstexaslandservices.com


I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PLAT WAS DERIVED FROM ACTUAL FIELD NOTES OF ON-THE-GROUND SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AT THE TIME OF SURVEY. THIS PROPERTY IS MADE OR INTENDED FOR THE CREATION OF NEW EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY.

REVISED 10/13/23
AUGUST 28, 2023

THAIS WATSON AHLSTRAND, RPLS #6359 — DATE

STATE OF TEXAS — THAIS WATSON AHLSTRAND — 6359 — REGISTERED PROFESSIONAL LAND SURVEYOR

0' 100' 200' 300'

NOTE:
1. BEARINGS, DISTANCES & ACREAGE SHOWN HEREON ARE GRID, NAD 83(2011)–HARN, LAMBERT GRID COORDINATES AND CONFORM TO THE TEXAS COORDINATE SYSTEM, "TEXAS CENTRAL ZONE", UTILIZING NGS OPUS SOLUTION.

2. THIS SURVEY WAS PREPARED WITHOUT BENEFIT OF A CURRENT TITLE REPORT. THERE MAY BE EASEMENTS AND/OR COVENANTS AFFECTING THIS PROPERTY NOT SHOWN HEREON.

3. IRON ROD SET ARE 1/2 INCH IRON REBAR WITH PLASTIC CAPS MARKED "CTLS"

4. THIS SURVEY IS A BOUNDARY SURVEY ONLY AND IS NOT AN ENGINEERING DESIGN SURVEY. NO IMPROVEMENTS AND/OR EASEMENTS ARE SHOWN HEREON.

5. A METES AND BOUNDS DESCRIPTION ACCOMPANIES THIS PLAT.

LEGEND:

| | |
|---|---|
| BOUNDARY LINE | CALC POINT |
| ADJOINER LINE | 1/2" IRON ROD W/CAP FOUND |
| SURVEY LINE | MONUMENT |
| BURIED UTILITY LINE | ATMOS BOX |
| OVERHEAD UTILITY LINE | UTILITY POLE |
| FENCE | WATER WELL/METER |
| P.U.E. PUBLIC UTILITY EASEMENT | MANHOLE |
| B.L. BUILDING SETBACK LINE | ELECTRIC BOX/METER |
| (BRG.–DIST.) RECORD CALL | LIGHT POLE |
| | TELEPHONE/CABLE PEDESTAL |
| | M.C.P.R. – MIDLAND COUNTY PLAT RECORDS |
| | M.C.D.R. – MIDLAND COUNTY DEED RECORDS |
| | M.C.O.P.R. – MIDLAND COUNTY OFFICIAL PUBLIC RECORDS |

REFERENCE: STILLWATER CAPITAL INVESTMENTS, LLC

PROPOSED VACATE OF ROAD

LEGAL DESCRIPTION:
BEING 0.159 ACRES (6,947 SQ. FT.) OF LAND, BEING THE EAST HALF OF THAT CERTAIN PORTION OF ROPE STREET (60' WIDE RIGHT OF WAY) LOCATED BETWEEN LOT 14, BLOCK 2, ADOBE MEADOWS, SECTION 2, RECORDED IN CABINET C, PAGE 171, OF THE PLAT RECORDS OF MIDLAND COUNTY, TEXAS, AND LOT 1, BLOCK 1, ADOBE MEADOWS, SECTION 8, RECORDED IN CABINET L, PAGE 135, OF THE SAID PLAT RECORDS.

JOB NO. 23-50122 REV. 1

DRAWN BY: TA

MIDLAND
Feel the Energy!

Office of the City Manager

November 7, 2023

Midland City Council
City of Midland, Texas

**RE: Request for vacation of a 0.159-acre portion of Rope Street right-of-way located adjacent to Lot 1, Block 1, Adobe Meadows Addition, Section 8, City and County of Midland, Texas**

Dear Members of the City Council:

The above-referenced property has been appraised in accordance with Chapter 272 of the Texas Local Government Code. The fair market value of the property is $477.00. Upon the City's receipt of this sum from the adjoining property owner(s), the ordinance vacating and abandoning the City's interest in the property may be recorded in the Midland County Clerk's office.

Very truly yours,

Jose Ortiz
Assistant City Manager

**EXHIBIT "C"**

300 N. Loraine, Midland TX 79701 • 432-685-7202 • Fax 432-686-1600

CTLS
Cross Texas Land Services,Inc

## PROPOSED STREET VACATE

**LEGAL DESCRIPTION:** Being 0.159 acres (6,947 sq. ft.) of land, being the east half of that certain portion of Rope Street (60' wide right of way) located between Lot 14, Block 2, Adobe Meadows, Section 2, recorded in Cabinet C, Page 171, of the Plat Records of Midland County, Texas, and Lot 1, Block 1, Adobe Meadows, Section 8, recorded in Cabinet L, Page 135, of the said Plat Records; Said 0.159 acre tract being more particularly described as follows and as surveyed under the supervision of Cross Texas Land Services Inc in July/August 2023:

**BEGINNING** at a 1/2 inch iron rod set in the east right of way line of said Rope Street, for the southwest corner of Rope Street (40' wide right of way), for the most easterly northwest corner of said Lot 1, for the northeast corner hereof, from which a 1/2 inch iron rod found for the northeast corner of said Lot 1 bears North 75°39'25" East, a distance of 416.87 feet;

THENCE along the east right of way of said Rope Street (60') and the upper west line of said Lot 1, and along a curve to the left with a radius of 190.44 feet, an arc length of 72.82 feet, and a chord bearing and distance of South 33°46'14" East, 72.37 feet to a "X" marked in concrete found in the east right of way of said Rope Street (60') and the upper west line of said Lot 1, for an angle point in the east line hereof;

THENCE along the east right of way of said Rope Street (60') and the upper west line of said Lot 1, and along a curve to the right with a radius of 528.93 feet, an arc length of 158.77 feet, and a chord bearing and distance of South 36°06'48" East, 158.18 feet the southeast corner of said Rope Street (60'), an ell corner of said Lot 1, for the southeast corner hereof;

THENCE South 75°34'44" West, along the south line of said Rope Street (60') and the lower north line of said Lot 1, a distance of 30.85 feet to a 1/2 inch iron rod set in the center of the south line of said Rope Street (60') and in the lower north line of said Lot 1, for the southwest corner hereof, from which a 1/2 inch iron rod with cap marked "Maverick" found in the lower north line of said Lot 1, for the southwest corner of said Rope Street (60') bears South 75°34'44" West, a distance of 30.88 feet;

THENCE along the centerline of said Rope Street (60') and along a curve to the left with a radius of 498.93 feet, an arc length of 142.77 feet, and a chord bearing and distance of

North 36°30'52" West, 142.29 feet to a 1/2 inch iron rod set in the centerline of said Rope Street (60'), for an angle point in the west line hereof;

THENCE along the centerline of said Rope Street (60') and along a curve to the right with a radius of 220.44 feet, an arc length of 88.75 feet, and a chord bearing and distance of North 33°11'25" West, 88.15 feet to a "X" marked in concrete set in the centerline of said Rope Street (60'), for the northwest corner hereof, from which a 1/2 inch iron rod set in the east line of said Lot 14, in the west line of said Rope Street (60') bears North 75°39'25" West, a distance of 30.14 feet;

THENCE North 75°39'25" East, crossing said Rope Street and along the same bearing of a line extension of the most northerly north line of said Lot 1, a distance of 30.29 feet to the POINT OF BEGINNING, and containing 0.159 acres, more or less, and as shown on the certified plat herewith.

Note: Bearings, distances and acreage shown hereon are NAD 83, Texas Central Zone and are derived from GPS techniques. Iron Rod set are 1/2-inch rod with plastic caps marked "CTLS".

Surveyed by:




August 28, 2023

Thais Watson Ahlstrand, R.P.L.S. #6359
702 Rio Grande, Ste. #301, Austin, TX 78701 – (512-965-2878)
Firm#100248-00
Job#23-50122

CTLS
Cross Texas Land Services,Inc

## PROPOSED STREET VACATE

**LEGAL DESCRIPTION:** Being 0.159 acres (6,947 sq. ft.) of land, being the east half of that certain portion of Rope Street (60' wide right of way) located between Lot 14, Block 2, Adobe Meadows, Section 2, recorded in Cabinet C, Page 171, of the Plat Records of Midland County, Texas, and Lot 1, Block 1, Adobe Meadows, Section 8, recorded in Cabinet L, Page 135, of the said Plat Records; Said 0.159 acre tract being more particularly described as follows and as surveyed under the supervision of Cross Texas Land Services Inc in July/August 2023:

**BEGINNING** at a 1/2 inch iron rod set in the east right of way line of said Rope Street, for the southwest corner of Rope Street (40' wide right of way), for the most easterly northwest corner of said Lot 1, for the northeast corner hereof, from which a 1/2 inch iron rod found for the northeast corner of said Lot 1 bears North 75°39'25" East, a distance of 416.87 feet;

THENCE along the east right of way of said Rope Street (60') and the upper west line of said Lot 1, and along a curve to the left with a radius of 190.44 feet, an arc length of 72.82 feet, and a chord bearing and distance of South 33°46'14" East, 72.37 feet to a "X" marked in concrete found in the east right of way of said Rope Street (60') and the upper west line of said Lot 1, for an angle point in the east line hereof;

THENCE along the east right of way of said Rope Street (60') and the upper west line of said Lot 1, and along a curve to the right with a radius of 528.93 feet, an arc length of 158.77 feet, and a chord bearing and distance of South 36°06'48" East, 158.18 feet the southeast corner of said Rope Street (60'), an ell corner of said Lot 1, for the southeast corner hereof;

THENCE South 75°34'44" West, along the south line of said Rope Street (60') and the lower north line of said Lot 1, a distance of 30.85 feet to a 1/2 inch iron rod set in the center of the south line of said Rope Street (60') and in the lower north line of said Lot 1, for the southwest corner hereof, from which a 1/2 inch iron rod with cap marked "Maverick" found in the lower north line of said Lot 1, for the southwest corner of said Rope Street (60') bears South 75°34'44" West, a distance of 30.88 feet;

THENCE along the centerline of said Rope Street (60') and along a curve to the left with a radius of 498.93 feet, an arc length of 142.77 feet, and a chord bearing and distance of

North 36°30'52" West, 142.29 feet to a 1/2 inch iron rod set in the centerline of said Rope Street (60'), for an angle point in the west line hereof;

THENCE along the centerline of said Rope Street (60') and along a curve to the right with a radius of 220.44 feet, an arc length of 88.75 feet, and a chord bearing and distance of North 33°11'25" West, 88.15 feet to a "X" marked in concrete set in the centerline of said Rope Street (60'), for the northwest corner hereof, from which a 1/2 inch iron rod set in the east line of said Lot 14, in the west line of said Rope Street (60') bears North 75°39'25" West, a distance of 30.14 feet;

THENCE North 75°39'25" East, crossing said Rope Street and along the same bearing of a line extension of the most northerly north line of said Lot 1, a distance of 30.29 feet to the POINT OF BEGINNING, and containing 0.159 acres, more or less, and as shown on the certified plat herewith.

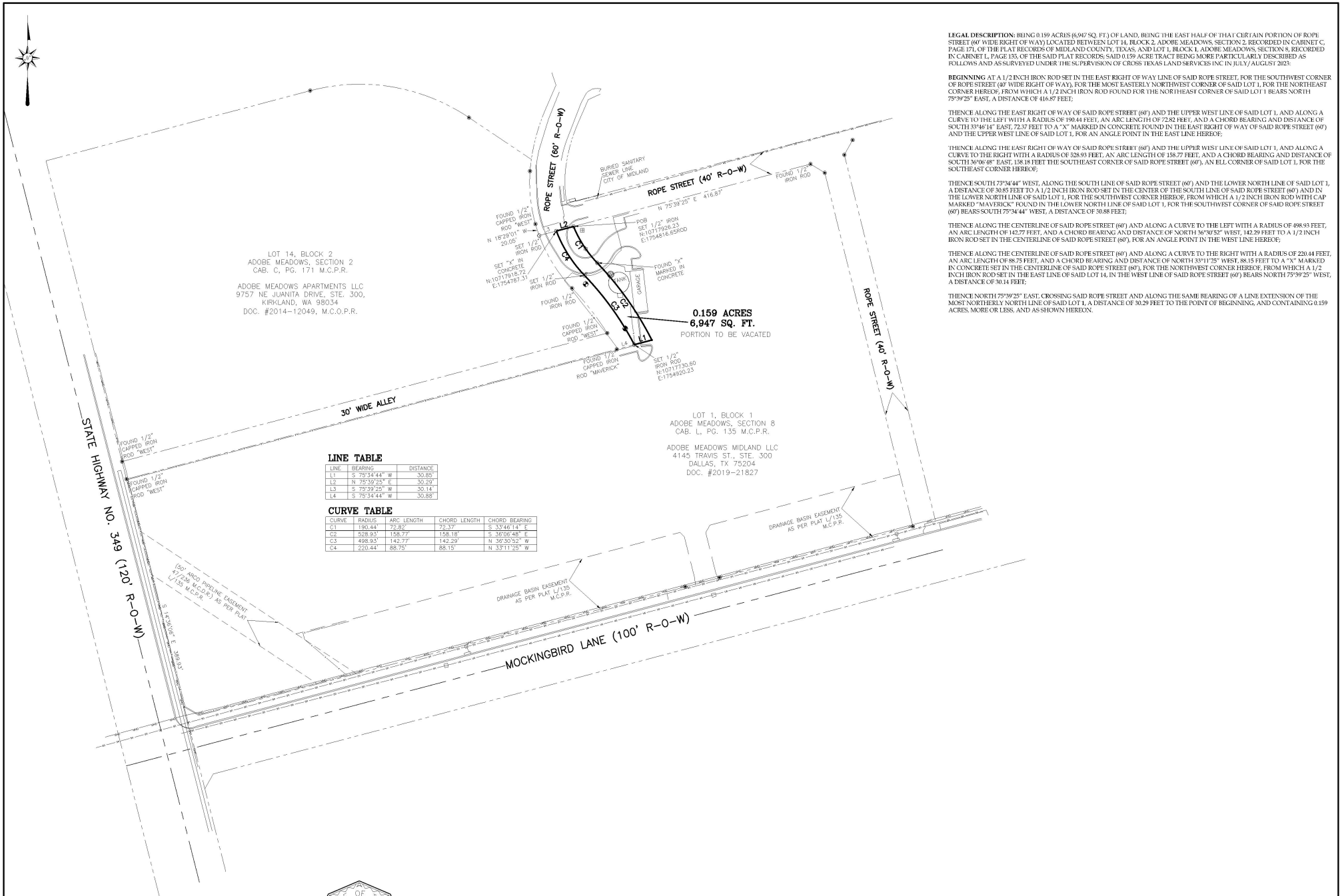
Note: Bearings, distances and acreage shown hereon are NAD 83, Texas Central Zone and are derived from GPS techniques. Iron Rod set are 1/2-inch rod with plastic caps marked "CTLS".

Surveyed by:




August 28, 2023

Thais Watson Ahlstrand, R.P.L.S. #6359
702 Rio Grande, Ste. #301, Austin, TX 78701 – (512-965-2878)
Firm#100248-00
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**LINE TABLE**

| LINE | BEARING | DISTANCE |
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| L1 | S 75°34'44" W | 30.85' |
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**CURVE TABLE**

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**LEGAL DESCRIPTION:** BEING 0.159 ACRES (6,947 SQ. FT.) OF LAND, BEING THE EAST HALF OF THAT CERTAIN PORTION OF ROPE STREET (60' WIDE RIGHT OF WAY) LOCATED BETWEEN LOT 14, BLOCK 2, ADOBE MEADOWS, SECTION 2, RECORDED IN CABINET C, PAGE 171, OF THE PLAT RECORDS OF MIDLAND COUNTY, TEXAS, AND LOT 1, BLOCK 1, ADOBE MEADOWS, SECTION 8, RECORDED IN CABINET L, PAGE 135, OF THE SAID PLAT RECORDS; SAID 0.159 ACRE TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS AND AS SURVEYED UNDER THE SUPERVISION OF CROSS TEXAS LAND SERVICES INC IN JULY/ AUGUST 2023:

**BEGINNING** AT A 1/2 INCH IRON ROD SET IN THE EAST RIGHT OF WAY LINE OF SAID ROPE STREET, FOR THE SOUTHWEST CORNER OF ROPE STREET (40' WIDE RIGHT OF WAY), FOR THE MOST EASTERLY NORTHWEST CORNER OF SAID LOT 1, FOR THE NORTHEAST CORNER HEREOF, FROM WHICH A 1/2 INCH IRON ROD FOUND FOR THE NORTHEAST CORNER OF SAID LOT 1 BEARS NORTH 75°39'25" EAST, A DISTANCE OF 416.87 FEET;

THENCE ALONG THE EAST RIGHT OF WAY OF SAID ROPE STREET (60') AND THE UPPER WEST LINE OF SAID LOT 1, AND ALONG A CURVE TO THE LEFT WITH A RADIUS OF 190.44 FEET, AN ARC LENGTH OF 72.82 FEET, AND A CHORD BEARING AND DISTANCE OF SOUTH 33°46'14" EAST, 72.37 FEET TO A "X" MARKED IN CONCRETE FOUND IN THE EAST RIGHT OF WAY OF SAID ROPE STREET (60') AND THE UPPER WEST LINE OF SAID LOT 1, FOR AN ANGLE POINT IN THE EAST LINE HEREOF;

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THENCE NORTH 75°39'25" EAST, CROSSING SAID ROPE STREET AND ALONG THE SAME BEARING OF A LINE EXTENSION OF THE MOST NORTHERLY NORTH LINE OF SAID LOT 1, A DISTANCE OF 30.29 FEET TO THE POINT OF BEGINNING, AND CONTAINING 0.159 ACRES, MORE OR LESS, AND AS SHOWN HEREON.

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702 RIO GRANDE, #301, AUSTIN, TX 78701
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I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PLAT WAS DERIVED FROM ACTUAL FIELD NOTES OF ON-THE-GROUND SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AT THE TIME OF SURVEY. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY.

THAIS WATSON AHLSTRAND, RPLS #6359

REVISED 10/13/23
AUGUST 28, 2023
DATE

STATE OF TEXAS
REGISTERED
THAIS WATSON AHLSTRAND
6359
PROFESSIONAL
LAND SURVEYOR

0' 100' 200' 300'

NOTE:
1. BEARINGS, DISTANCES & ACREAGE SHOWN HEREON ARE GRID, NAD 83(2011)–HARN, LAMBERT GRID COORDINATES AND CONFORM TO THE TEXAS COORDINATE SYSTEM, "TEXAS CENTRAL ZONE", UTILIZING NGS OPUS SOLUTION.

2. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT. THERE MAY BE EASEMENTS AND/OR COVENANTS AFFECTING THIS PROPERTY NOT SHOWN HEREON.

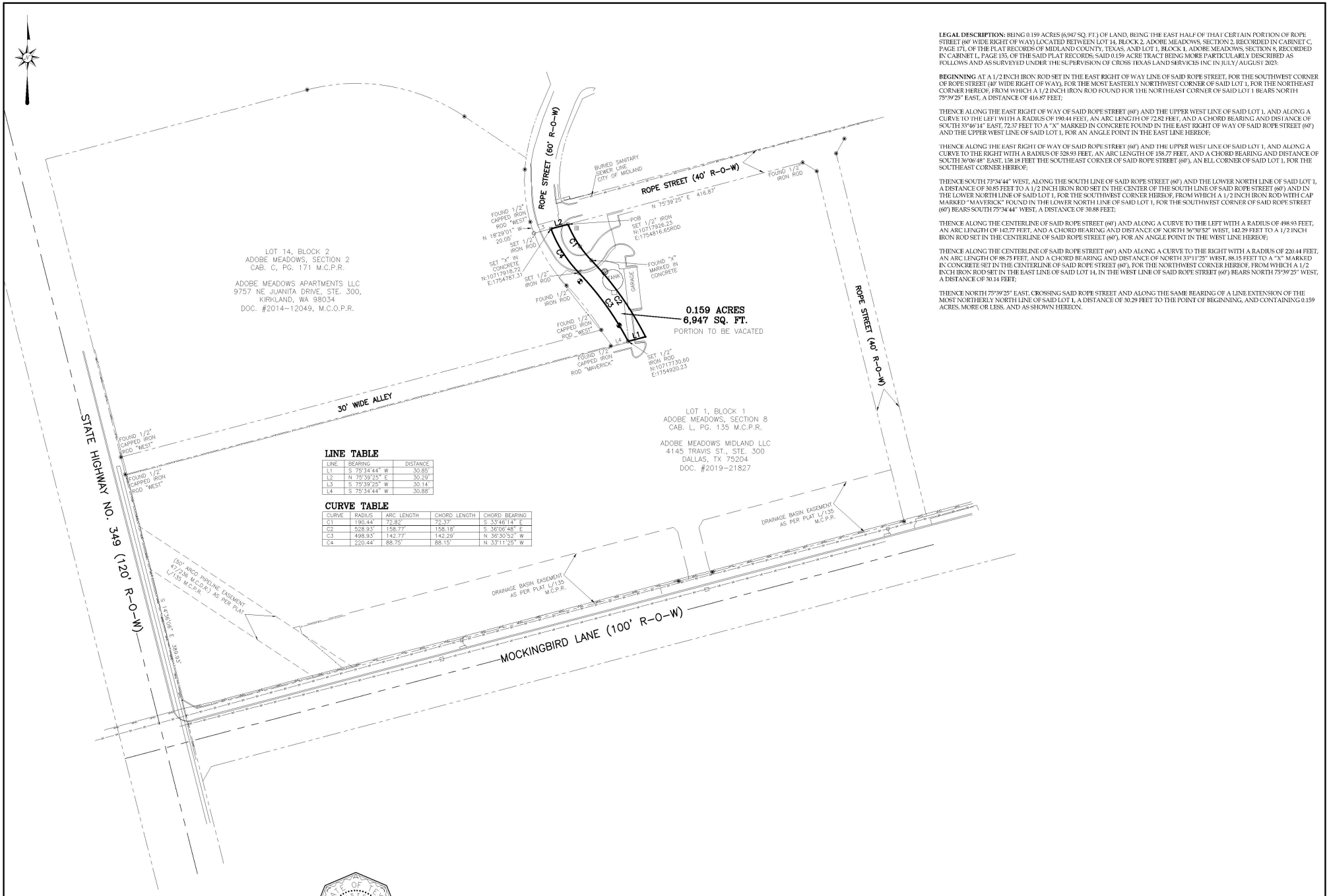
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5. A METES AND BOUNDS DESCRIPTION ACCOMPANIES THIS PLAT.

LEGEND:
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- ADJOINER LINE
- SURVEY LINE
- BURIED UTILITY LINE
- OVERHEAD UTILITY LINE
- FENCE
- P.U.E. PUBLIC UTILITY EASEMENT
- B.L. BUILDING SETBACK LINE
- (BRG.-DIST.) RECORD CALL
- CALC POINT
- 1/2" IRON ROD W/CAP FOUND
- MONUMENT
- ATMOS BIG LINE MARKER
- UTILITY POLE
- WATER WELL/METER
- MANHOLE
- ELECTRIC BOX/METER
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- M.C.P.R. – MIDLAND COUNTY PLAT RECORDS
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REFERENCE: STILLWATER CAPITOL INVESTMENTS, LLC
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JOB NO. 23-50122 REV. 1
DRAWN BY: TA




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THAIS WATSON AHLSTRAND, RPLS #6359 — REVISED 10/13/23 AUGUST 28, 2023 — DATE

STATE OF TEXAS — THAIS WATSON AHLSTRAND — 6359 — REGISTERED PROFESSIONAL LAND SURVEYOR

0' 100' 200' 300'

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JOB NO. 23-50122 REV. 1
DRAWN BY: TA

MIDLAND
Planning Division

# Vacate Right-of-Way/Public Utility Easement/Land/Street Application

Project Number: V-23-0056

Case Number: _____

| **Applicant** *(if acting as Agent, see affidavit on page 2)* Printed Name: Aaron Sherman | | Phone (432 )661-2202 Email tahlstrand@crosstexaslandservices.com | |
|---|---|---|---|
| Address 3503 W. Michigan Ave. | City Midland | State TX | Zip 79703 |

**Application is hereby made to the City Council to vacate the following:**

- ☐ Right-of-Way
- ☐ Public Utility Easement
- ☐ Land
- ■ Street

**Description of Address:** East half of Rope Street between Lot 14, Block 2, Adobe Meadows, Section 2, and Lot 1, Block 1, Adobe Meadows, Section 8

**Reason for Request:** To vacate portion of street to allow existing additional structures to remain.

**Reasons, in applicant's opinion, why the requested vacation will not adversely affect the public welfare or will contribute to it in a positive way:** Currently not in use as public ROW due to special use permit granted to owners of Lot 1, Block 1. Area is currently fenced.

## Submittal and Fees

**Items to be submitted with this application form:**

- Application Fee – Payable to the 'City of Midland'
- Sealed metes and bounds description of the property to be vacated (included on the map) and total square feet of vacation. Include ownership, legal and deed information for adjacent property owners
- Digital Copies of Survey (PDF/JPEG)

## Utility Company Approval

Clearance is needed from the following utility companies:

- City of Midland
- AT&T
- Atmos Energy
- Suddenlink Cable TV Co.
- Oncor Electric
- Grande Communications

The City will route the request to these companies, but it is the applicant's responsibility to ensure clearance has been obtained to resolve any issues that may arise.

## Policies

1. If the vacation request involves only a portion of a section right-of-way, such that approval would not affect the public's ability to travel along said right-of-way, then the request will be scheduled for consideration by the City Council. No public hearing will be needed.

2. If the vacation request involves an entire section of right-of-way, such that approval would cause the public to lose all rights to use it, then the following procedures apply:

   a. Nearby land owners who have a reasonable expectation to use said right-of-way, as determined by the Transportation Division, must first agree to the proposed vacation. It is the applicant's responsibility to obtain a letter of concurrence signed by the affected landowners.

   b. If all letters are received indicating that the affected landowners agree to the request, then a public hearing before the City Council will be scheduled. The Planning Division will mail public notice of the hearing to landowners within 400 feet of the affected right-of-way.

   c. If a request is approved, the right-of-way shall be divided into two equal parts, with each half becoming the property of the respective abutting owner. If the applicant desires to own the entire width, he or she must negotiate with the opposite landowner.

## Signatures

| | | |
|---|---|---|
| Applicant (signature): DocuSigned by: Aaron Sherman 838FFFFEFF414FB... | | Date: 8/28/2023 |
| **Affected Property Owners:** | | |
| Signature: | Print: | Date: |
| Signature: | Print: | Date |
| Signature: | Print: | Date |
| Signature: | Print: | Date |

*The Vacation of right-of-way/public utility easement/land/street shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.*

## FOR OFFICE USE ONLY

☑ 1 FOLDED Copy of Survey ☑ Survey in Digital Format (PDF/JPEG)

☑ Application Fee

Check #_____

Received By: London Moss Date: SEP 05 2023

****Application will not be considered for scheduling until reviewed by a planner.****

MIDLAND
Planning Division

# Vacate Right-of-Way/Public Utility Easement/Land/Street Application

Project Number: V-23-0056

Case Number: _____

| **Applicant** *(if acting as Agent, see affidavit on page 2)* Printed Name: Aaron Sherman | | Phone (432) 661-2202 Email tahlstrand@crosstexaslandservices.com | |
|---|---|---|---|
| Address 3503 W. Michigan Ave. | City Midland | State TX | Zip 79703 |

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| | | |
|---|---|---|
| Applicant (signature): DocuSigned by: Aaron Sherman 838FFFFEFF414FB... | | Date: 8/28/2023 |
| **Affected Property Owners:** | | |
| Signature: | Print: | Date: |
| Signature: | Print: | Date |
| Signature: | Print: | Date |
| Signature: | Print: | Date |

*The Vacation of right-of-way/public utility easement/land/street shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.*

## FOR OFFICE USE ONLY

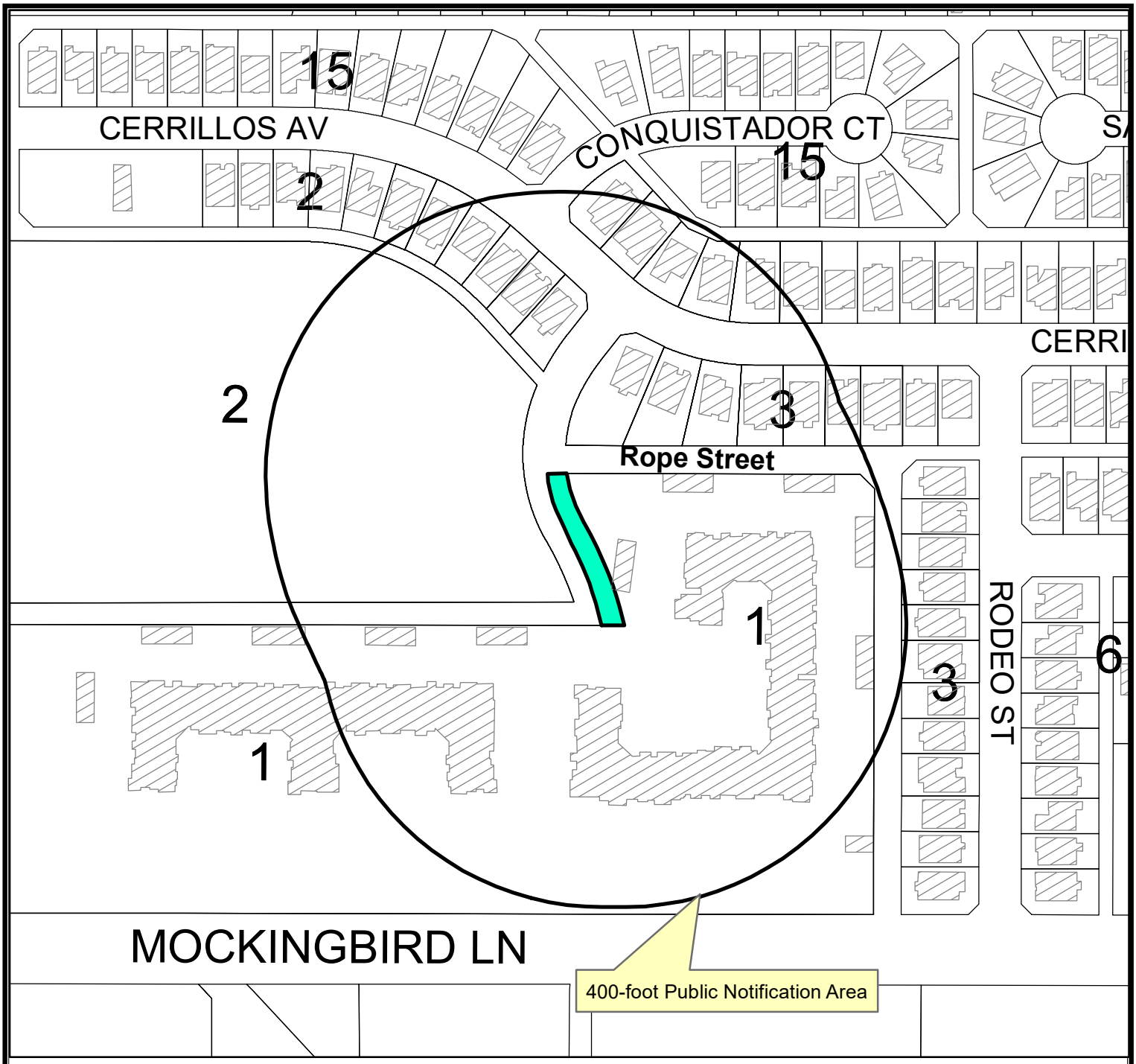
☑ 1 FOLDED Copy of Survey ☑ Survey in Digital Format (PDF/JPEG)

☑ Application Fee

Check #_____

Received By: London Moss Date: SEP 05 2023

****Application will not be considered for scheduling until reviewed by a planner.****




# LOCATION MAP

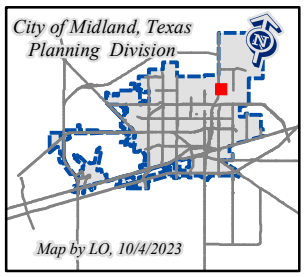
**V-23-0056** **Scale: 1" = 2,921'**

Consider a request by Thais Ahlstrand for a vacation of a 0.159 acre portion of Rope right-of-way located adjacent to Lot, Block 1, Adobe Meadows, Section 8, City and County of Midland, Texas.

(Generally located on the east side Rope Street, approximately 435 ± feet north Mockingbird Lane. District:1)

**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




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**Sent:** Monday, October 9, 2023 3:54 PM
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**Cc:** Jeffrey S. Fisher
**Subject:** Re: V-23-0056 Vacation of Rope Street Portion Valuation
**Attachments:** V-23-0056, TaxVacMCAD vac ltr.pdf; V-23-0056, Survey.pdf; V-23-0056, Location Map.pdf

Landon,

See below,

Market Value

.159 X $3,000 = $477

Sincerely,

***Lisa Reyna, RPA***
***Assistant Chief Appraiser***
***Midland Central Appraisal District***
***4631 Andrews Hwy***
***Midland, TX  79703***
***Phone (432) 699-4991***
***Fax (432) 689-7185***

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To: Lisa Reyna <lreyna@midcad.org>
Cc: "Jeffrey S. Fisher" <jsfisher@midlandtexas.gov>
Date: 10/06/2023 04:03 PM
Subject: V-23-0056 Vacation of Rope Street Portion Valuation

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Lisa,

Please see the attached documents for this request to vacate a portion of Rope Street. Please provide a valuation for this property by October 12, 2023. Thank you!

Respectfully,

Landon Ochoa
Senior Planner
Planning Division
Development Services
O. 432-685-7405

ljochoa@midlandtexas.gov









300 N. Loraine | P.O. Box 1152 | Midland, TX 79702

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MIDLAND
Planning Division

October 6, 2023

Mr. Mark Lieb
Atmos Energy
P.O. Box 1111
Midland, Texas 79702

STREET VACATION: Please see attached Exhibit A and map.

**CASE NO.:** V-23-0056
**CASE NAME:** Rope Street

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Thais Ahlstrand has submitted a request to vacate a 0.159-acre portion of Rope Street right-of-way, located adjacent to Lot 1, Block 1, Adobe Meadows, Section 8, City and County of Midland, Texas (see attached exhibit). Please advise if your company has utilities within the alley or the portion of Rope Street to be vacated. We would appreciate any comments you may have concerning this requested vacation returned to us within 5-7 days. You may reach me at (432) 685-7405 if you have any questions. You can send your response via email to jsfisher@midlandtexas.gov.

Thank you for your assistance.

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Jeff Fisher, AICP
Planning Manager
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Attachment:
Exhibit A
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**Attachments:** V-23-0056, Atmos Letter.pdf; Request to Vacate Rope Street ROW.pdf

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Jerry

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**To:** Landon J. Ochoa
**Subject:** Re: FW: V-23-0056 Rope Street Vacation (Grande)

We only have services within the apartment complex.

**Thank You**
Ruben Guerra
**Construction Coordinator**
O: 432-272-3088
C: 432-653-9369
Ruben.Guerra@astound.com
**Astound Business Solutions**
**Powered by RCN | Grande | Wave**
**astound.com**

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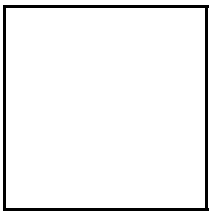
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**Sent:** Friday, November 3, 2023 11:05 AM
**To:** Landon J. Ochoa
**Subject:** FW: V-23-0056 Rope Street Vacation (Oncor)

---

**From:** Molina, Sergio <Sergio.Molina@oncor.com>
**Sent:** Sunday, October 15, 2023 10:55 PM
**To:** Jeffrey S. Fisher <jsfisher@midlandtexas.gov>; Landon J. Ochoa <ljochoa@midlandtexas.gov>; Arguello, Martin <Martin.Arguello@oncor.com>
**Cc:** Blankenship, Chad <Chad.Blankenship@oncor.com>
**Subject:** RE: V-23-0056 Rope Street Vacation (Oncor)



Yes sir

Sergio Molina, P.E.
Oncor | NCM Manager WTX
Cell: 214.970.4143

My Manager: Hannah Hamilton
Cell: 432.894.4601 email: Hannah.Hamilton@oncor.com

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**Cc:** Blankenship, Chad <Chad.Blankenship@oncor.com>
**Subject:** RE: V-23-0056 Rope Street Vacation (Oncor)

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Sergio,

Can they secure with a utility access easement through the replat process as we've done with other projects?

Jeff

**Jeff Fisher, AICP**
**Planning Manager**
Planning Division | City of Midland
Tel. 432-685-7407
jsfisher@midlandtexas.gov




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**Subject:** RE: V-23-0056 Rope Street Vacation (Oncor)

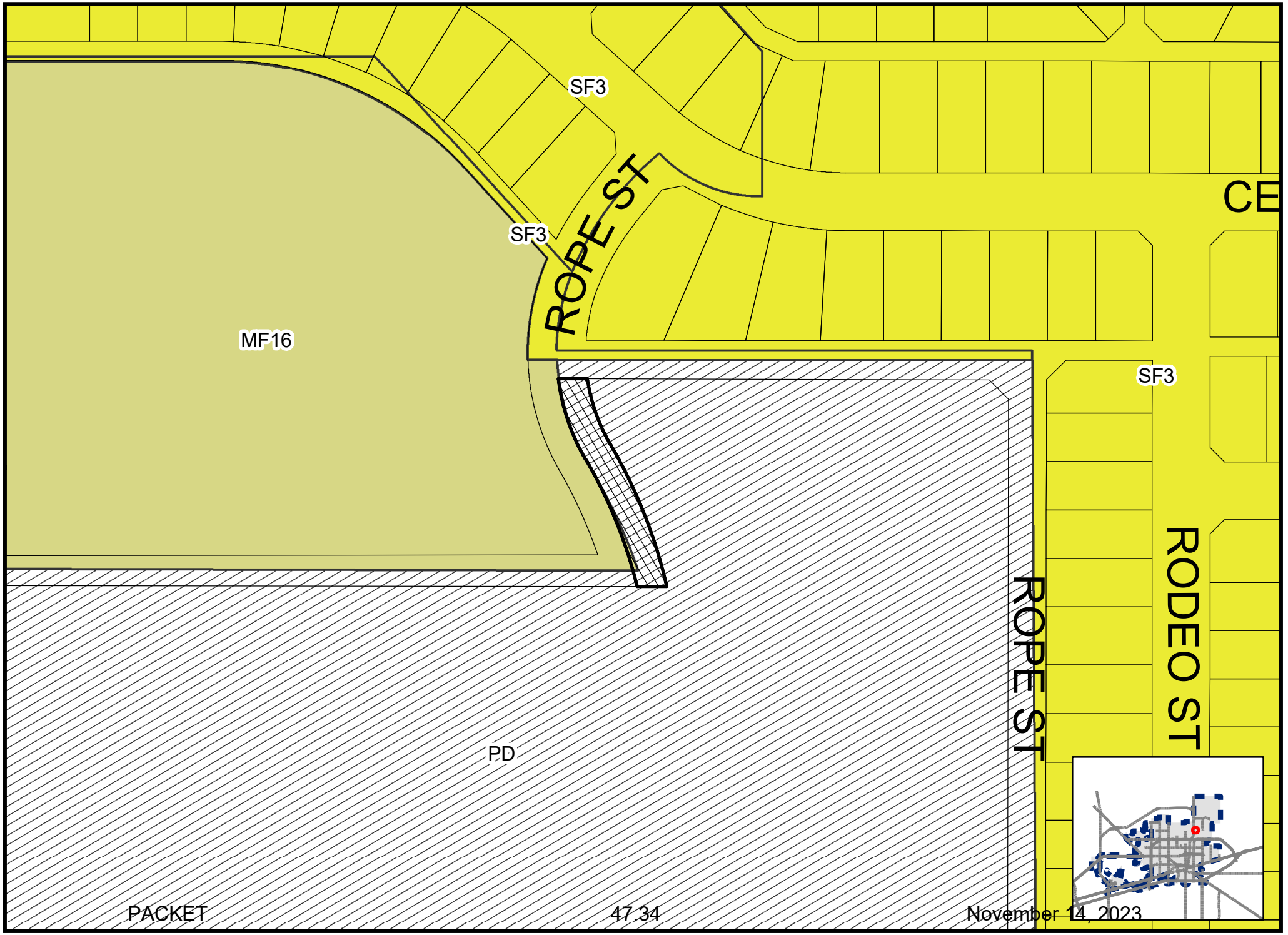
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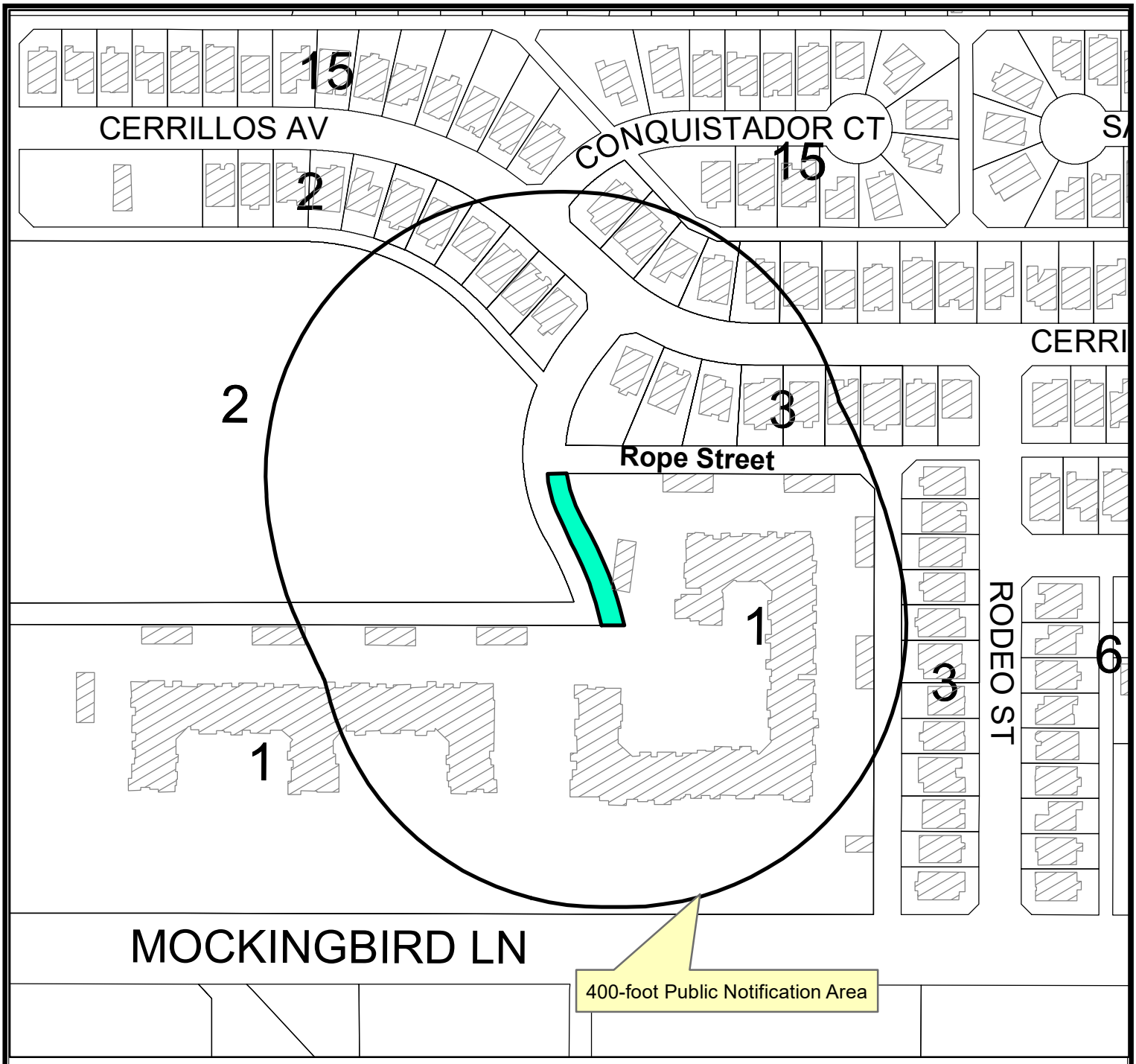

*Map By LO, 11/3/2023*

**V-23-0056**

**Scale: 1" = 1,495'**

# ZONING MAP

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# LOCATION MAP

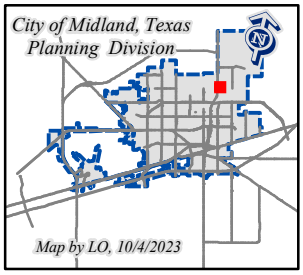
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(Generally located on the east side Rope Street, approximately 435 ± feet north Mockingbird Lane. District:1)

**L E G E N D**

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**Attachments:** V-23-0056, TaxVacMCAD vac ltr.pdf; V-23-0056, Survey.pdf; V-23-0056, Location Map.pdf

Landon,

See below,

Market Value

.159 X $3,000 = $477

Sincerely,

***Lisa Reyna, RPA***
***Assistant Chief Appraiser***
***Midland Central Appraisal District***
***4631 Andrews Hwy***
***Midland, TX 79703***
***Phone (432) 699-4991***
***Fax (432) 689-7185***

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Senior Planner
Planning Division
Development Services
O. 432-685-7405

ljochoa@midlandtexas.gov









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MIDLAND
Planning Division

October 6, 2023

Mr. Mark Lieb
Atmos Energy
P.O. Box 1111
Midland, Texas 79702

STREET VACATION: Please see attached Exhibit A and map.

**CASE NO.:** V-23-0056
**CASE NAME:** Rope Street

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Planning Division

Attachment:
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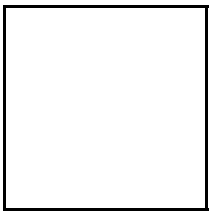
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**Planning Manager**
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Tel. 432-685-7407
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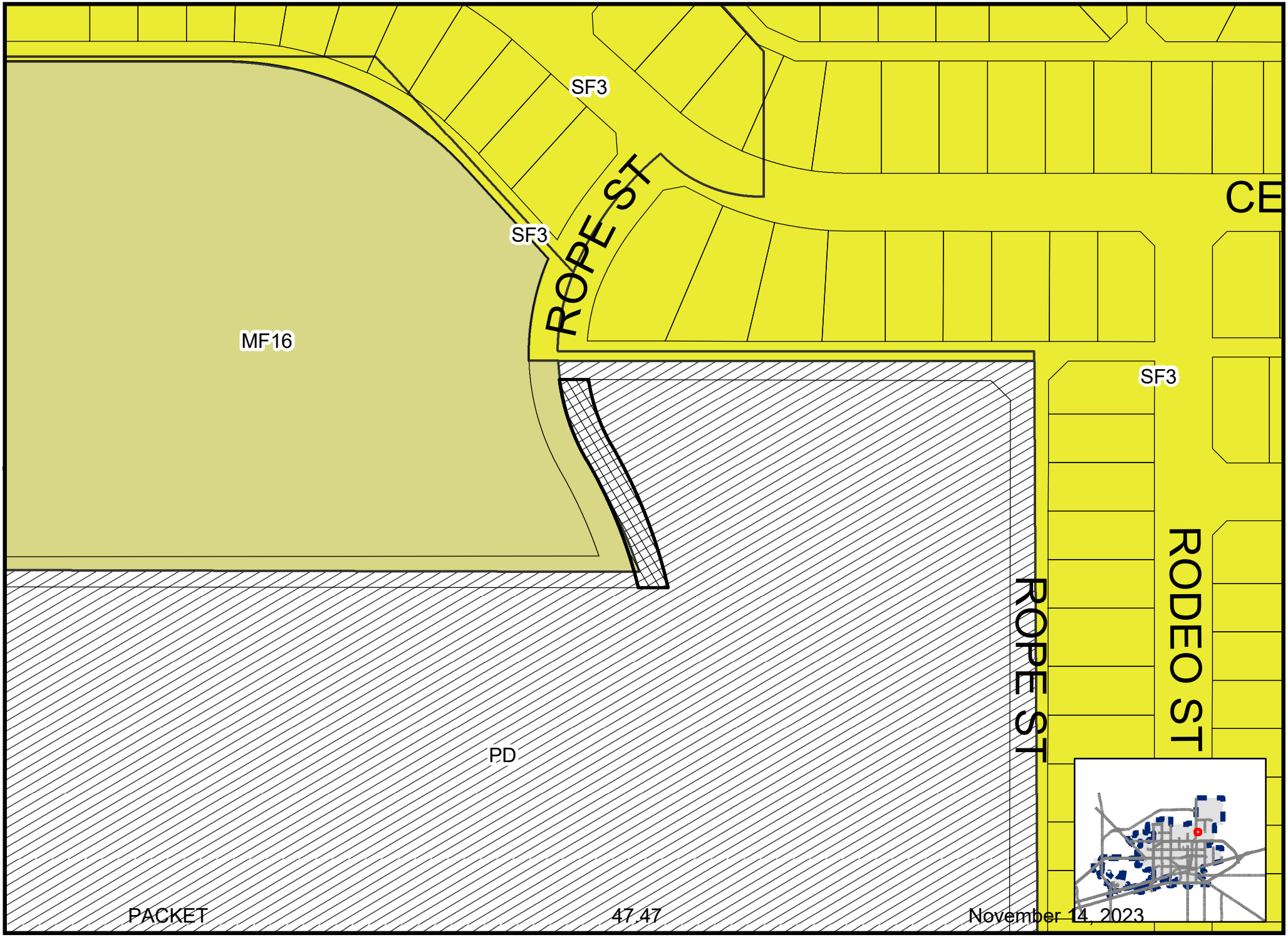
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*Map By LO, 11/3/2023*

**V-23-0056**

**Scale: 1" = 1,495'**

# ZONING MAP

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# City Council Meeting

**Item Number:** 48

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Daniel Humbert, Planner

**Subject:** AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 3A, BLOCK 52, BELMONT ADDITION, SECTION 12, CITY AND COUNTY OF MIDLAND, TEXAS, FROM PD, PLANNED DEVELOPMENT DISTRICT FOR A SHOPPING CENTER TO RR, REGIONAL RETAIL DISTRICT (GENERALLY LOCATED ON THE NORTH SIDE OF WEST LONGVIEW AVENUE, APPROXIMATELY 165 FEET EAST OF BELMONT STREET); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DISTRICT 2) (DEVELOPMENT SERVICES)

---

**Purpose:**

The applicant, Leela S. Pillarisetty, is requesting a Zone Change from PD, Planned District for a Shopping Center (Ordinance 8471) to RR, Regional Retail District for the future development of retail.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

No city funds would be required for this project.

**Discussion:**

**Current Zoning:**

PD, Planned District for a Shopping Center (Ordinance 8471).

**Surrounding Zoning and Land Use:**

The properties to the north and east are zoned RR, Regional Retail District, and location of commercial uses. The properties to the south and west are zoned PD, Planned District for a Shopping Center (Ordinance 8239), and Planned District for a Shopping Center (Ordinance 8471) respectively, and the location of commercial uses.

**Analysis:**

The applicant is proposing to develop the subject lot located at 300 W Longview Avenue in a manner that does not conform with the regulations and site plan approved by the City Council in Ordinance 8471. The applicant is requesting to have the property zoned RR, Regional Retail District, and will develop the property in compliance with the regulations and standards of the RR, Regional Retail District.

This proposed zone change has been circulated to the respective City departments for internal review and their comments, conditions, and requirements are as follows:

**Fire: (Approved)**

No objection.

**Oil and Gas: (Approved)**

No Oil and Gas issues.

**Engineering: (Approved)**

No Objections. [For Applicant's Information Only.] Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations. [For Applicant's Information Only.]

**Building: (Approved)**

No issues. All future structures must adhere to the 2018 International Building Codes, the 2015 International Energy Code, the 2020 NEC, the 2015 International Fire Codes, local city ordinances, zoning requirements, established setbacks, oil and gas considerations, and floodplain requirements if necessary. Code versions are subject to change depending on time of new code edition adoption in the City of Midland and date of permit application.

**Transportation: (Approved)**

No objections to zoning/zone change. [For Applicant's Information Only.] Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations. [For

Applicant's Information Only.

**Planning:**

This request complies with the Tall City Tomorrow Comprehensive Plan, Chapter 3-Land Use Vision, which designates the property within the Gateway Corridor Area. This area allows for a range of industrial, office, or even retail development as long as it supports or strengthens major employment uses. The property is surrounded by retail and employment uses and this zone change would therefore strengthen and support these uses.

Staff recommends approval of this zone change from PD, Planned District for a Shopping Center, to RR, Regional Retail District, subject to condition A.

**Condition:**

**A. That the use and development of this property shall conform to the regulations of the RR, Regional Retail District.**

**Letters of Objection:**

As of November 1, 2023, staff has received no letters of objection for this request.

**Attachments:**

Application
Maps
Ordinance No. 8471
Photos

Morris Williams Jr.

City Manager's Office

**ORDINANCE NO. _____**

**AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 3A, BLOCK 52, BELMONT ADDITION, SECTION 12, CITY AND COUNTY OF MIDLAND, TEXAS, FROM PD, PLANNED DEVELOPMENT DISTRICT FOR A SHOPPING CENTER TO RR, REGIONAL RETAIL DISTRICT (GENERALLY LOCATED ON THE NORTH SIDE OF WEST LONGVIEW AVENUE, APPROXIMATELY 165 FEET EAST OF BELMONT STREET); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION**

**WHEREAS**, the City Planning and Zoning Commission and the Governing Body of the City of Midland, in compliance with the City Charter, the City Code, and State law, have given the requisite notices by United States mail, publication and otherwise; and after a full and fair hearing to all of the property owners generally and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body finds that the public health, safety and general welfare will be best served by rezoning Lot 3A, Block 52, Belmont Addition, Section 12, City and County of Midland, Texas (the "Property") to RR, Regional Retail District, as set out hereinafter;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the Zoning District Map of the City of Midland, Texas, is hereby amended to rezone the Property from PD, Planned Development District for a Shopping Center to RR, Regional Retail District.

**SECTION TWO.** That the definitions given in the zoning regulations contained in the City Code of the City of Midland, Texas, shall be applicable to such of those terms as are used herein.

**SECTION THREE.** The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as

that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION FOUR.** If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION FIVE.** The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION SIX.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2023; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2023, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Cristina Burns, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

MIDLAND
Planning Division

# Zone Change/Planned District Amendment/Site Plan Approval

Project Number: _____

Case Number: 2-23-0348

**Applicant** *(if acting as Agent, see affidavit on page 2)*
Printed Name: Leela S. Pilkarisetty
Address: 4501A Santa Rosa Dr. 421 N. Tom Brien Ave
City: Midland Odessa
Phone: ~~(432) 770-0499~~ 432-[illegible]
Email: drleelashavath@yahoo.com
john@newtoncivil.com
State: Texas
Zip: 79707 79761

**Property Owner**
Printed Name: Lee Legacy Realty LLC
Address: 3139 San Saba Dr.
City: Odessa
Phone: (432 ) 770-0499
Email: ncsturgeon@ncsturgeon.com
State: Texas
Zip: 79765

**Representative** *(if different from Applicant or Property Owner)*
Firm: Newton Engineering, PC
Printed Name: John Newton
Address: 4501A Santa Rosa Dr.
City: Midland
Phone: ( 432 ) 770-0499
Email: john@newtoncivil.com
State: Tx
Zip: 79707

**Street Address:** 300 W Longview Ave.

**Legal Description**
Lot: 3A Block: 52 Subdivision: BELMONT

**Current Zoning:** PD-SP

**Proposed Zone:** PD-SP
*(List by tracts if more than one district is requested)*

**Reason for Zone Change Request:** TO ADJUST THE SITE PLAN FOR THIS AREA TO REFLECT THE INTENDED USE FOR THIS PROPERTY

**Present Use of Property:** VACANT

**Proposed Use of Property:** RETAIL

**How would this zone change affect the public health, safety and welfare?**
This zone change would not adversely affect the public in any way.

**Describe how conditions affecting the property have changed since present zoning designation:** A retail site is being planned for this area which needs to amend the site plan of the PD.

**Submittal and Fees**
**Items to be submitted with this application form:**

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Site Plan
- Digital Copies of Site Plan PDF/JPEG)

| **Signature** *(by property owner only – authorized agent must sign affidavit below)* | |
|---|---|
| Applicant (signature): | Date: 8-21-23 |
| Applicant (printed): LEELA S PILLARISETTY | |
| Property Owner (signature): | Date: 8-21-23 |
| Property Owner (printed): ~~LEELA S PILLARISETTY~~, Lee Legacy Realty, LLC | |

*The Zone Change/Planned District Amendment/Site Plan Approval shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.*

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appear John M. Newton who, being by me duly sworn, upon oath says: That (s)he is the owner of Lot 3A Belmont or authorized by Leela Pillarisetty the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

John M. Newton
Authorized Agent (*signature*)

Subscribed and sworn to before me, this 18 day of September, 2023, to certify which witness my hand and seal of office.

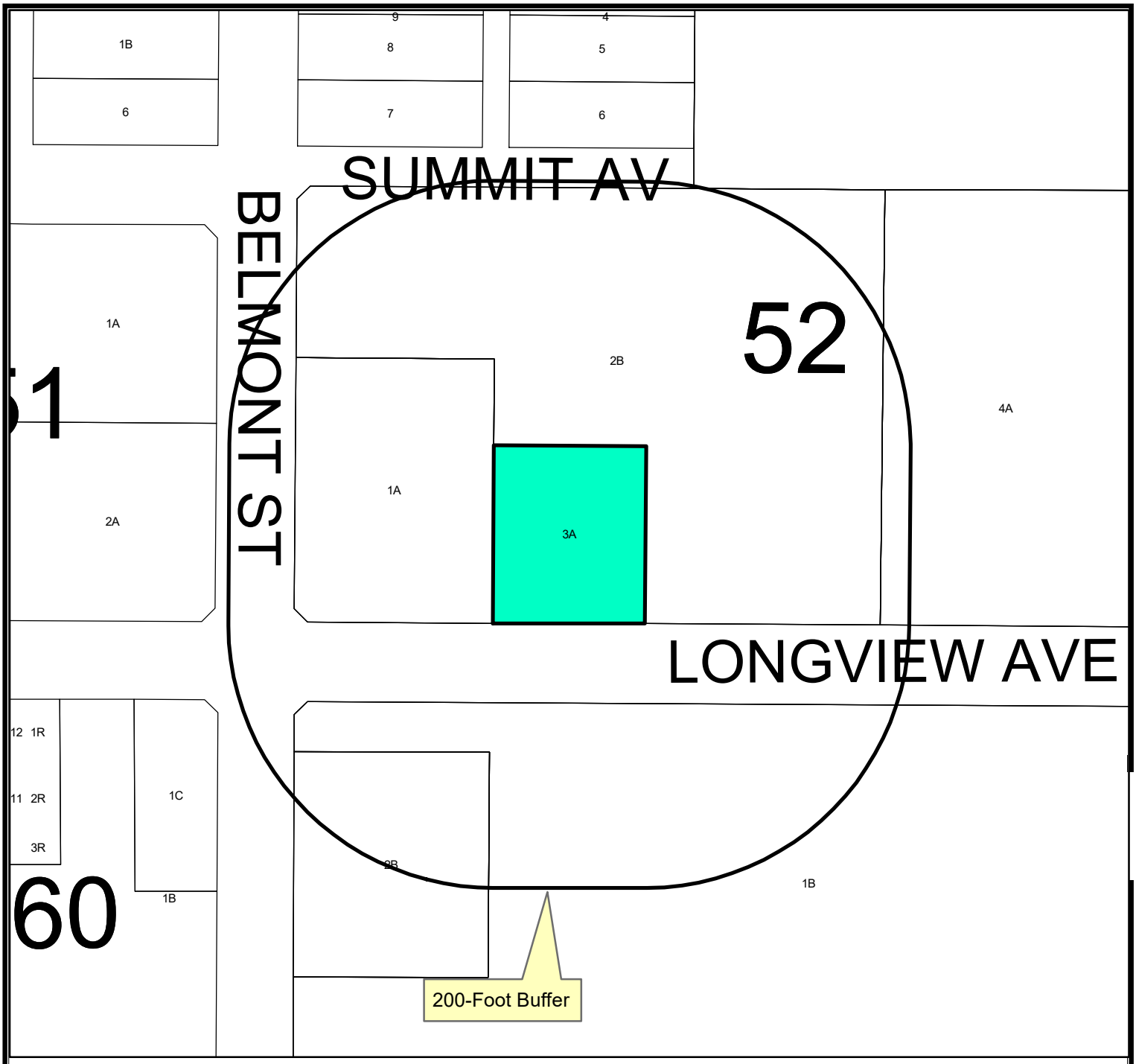
Liliana Arisbet Morales Espino
My Commission Expires
9/15/2026
Notary ID133963273

NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

**FOR OFFICE USE ONLY**

| | |
|---|---|
| ☑ Property Owner Authorization | ☑ Dimensioned Site Plan |
| ☑ Application Fee | ☑ Plans in Digital Format (PDF/JPEG) |
| Check # 1608 | |
| Received By: Daniel Hamlett | Date: 9-19-23 |

**Application will not be considered for scheduling until reviewed by planner.**




# LOCATION MAP

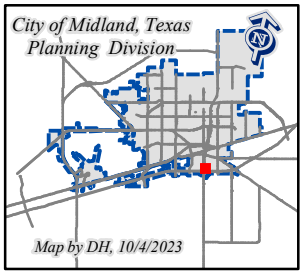
**Z-23-0348** **Scale: 1" = 1,297'**

A request by Leela S. Pillarisetty for a zone change from PD, Planned Development District (Ordinance 8471) for a shopping center to RR, Regional Retail District for a shopping center on Lot 3A, Block 52, Belmont Addition, Section 12, City and County of Midland, Texas.

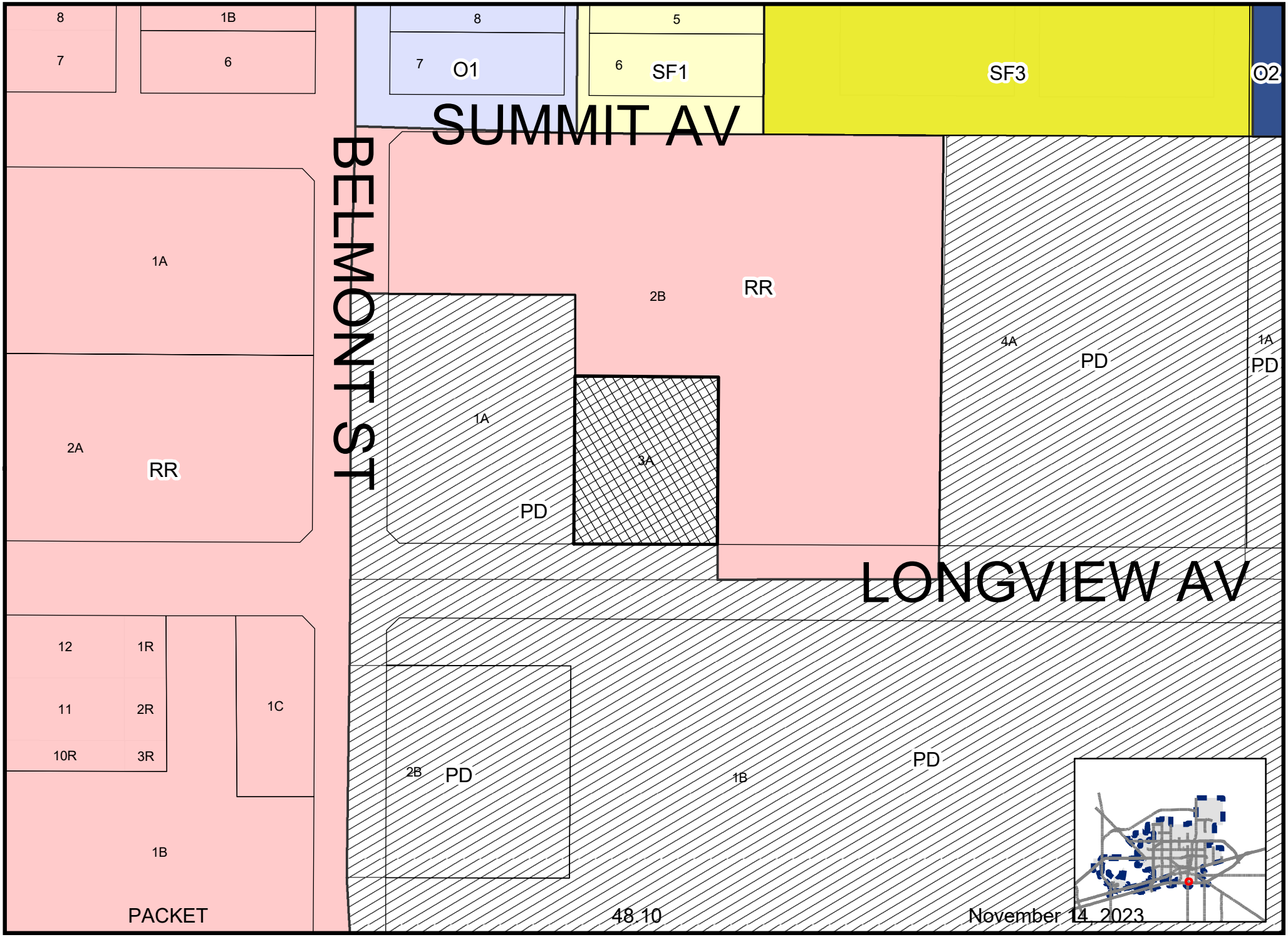
Generally located north of West Longview Avenue approximately 165-feet from Belmont Street (Council District 2)

**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




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*Map By DH, 10/12/2023*

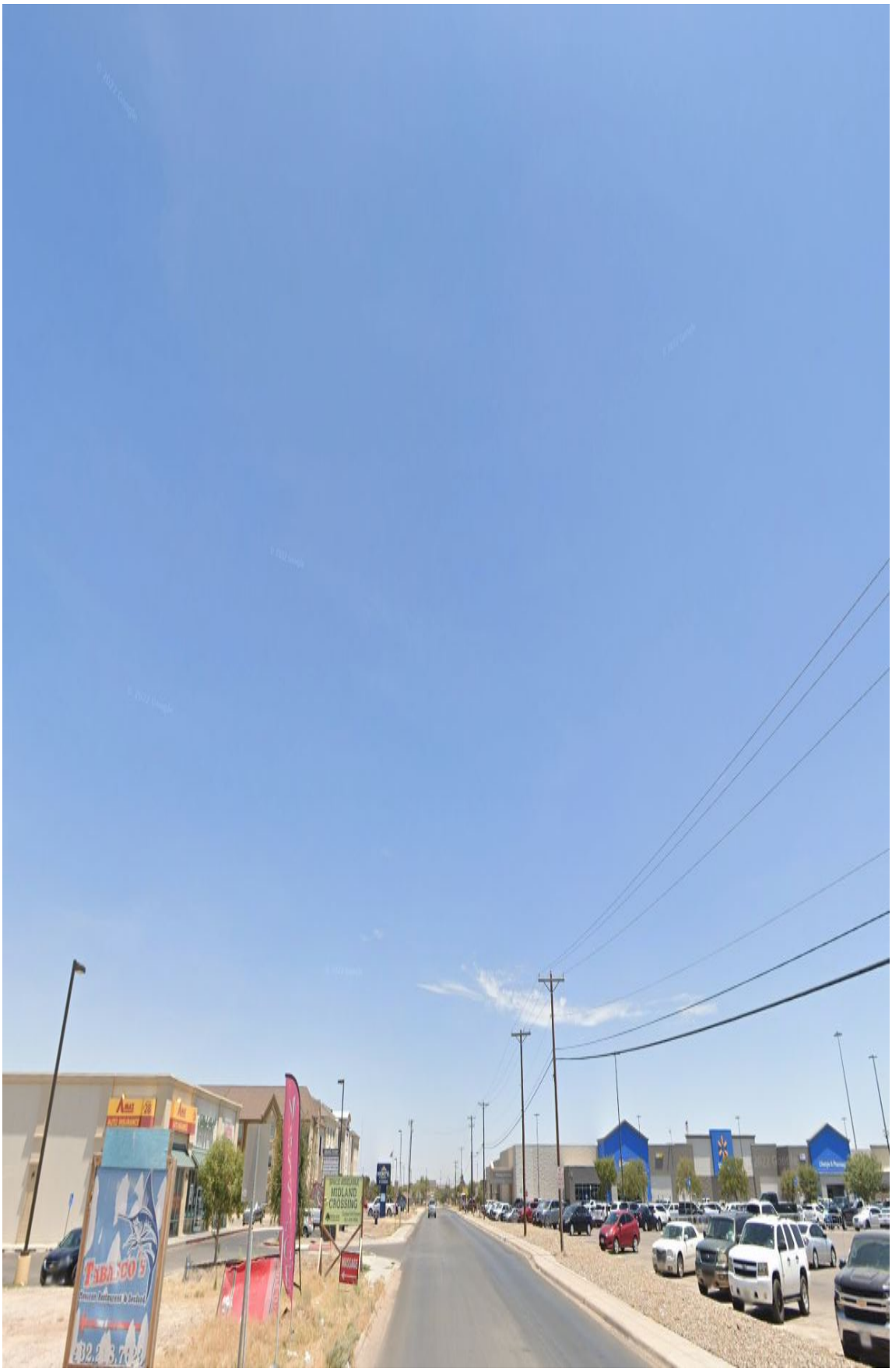
**Z-23-0348**

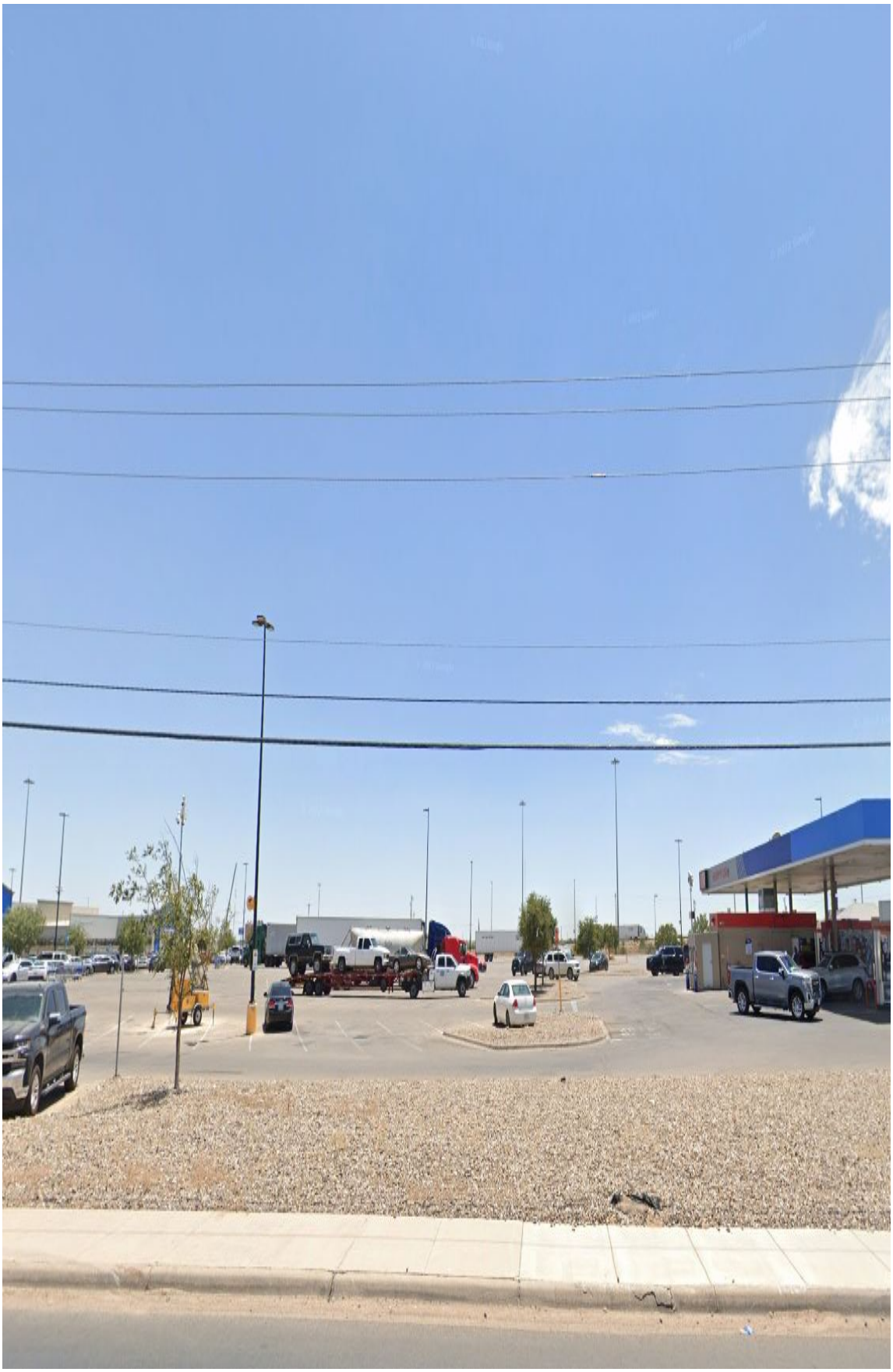
**Scale: 1" = 1,158'**

# ZONING MAP

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MIDLAND
CROSSING





**ORDINANCE NO. 8471**

**AN ORDINANCE CHANGING THE ZONING CLASSIFICATION AMENDING CHAPTER ONE, TITLE XI, OF THE CITY CODE OF MIDLAND, TEXAS, BY PERMITTING BLOCK 52, BELMONT ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS, WHICH IS PRESENTLY ZONED 1F-1, ONE-FAMILY DWELLING DISTRICT, AND O-1, OFFICE DISTRICT, TO BE USED AS A PLANNED DISTRICT FOR A SHOPPING CENTER; PROVIDING FOR SUCH USE TO BE SUBJECT TO CERTAIN SPECIAL CONDITIONS AND RESTRICTIONS AS SET OUT HEREIN; AUTHORIZING AND DIRECTING THE CITY MANAGER TO EXECUTE A LETTER ADDRESSING THE VACATION AND ABANDONMENT BY MIDLAND COUNTY OF PUBLIC RIGHT-OF-WAY EAST OF BLOCK 52, BELMONT ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION**

**WHEREAS**, the City Planning and Zoning Commission and the Governing Body of the City of Midland, in compliance with the City Charter and the State law with reference to the creation of Districts under the zoning ordinance regulations and zoning map, have given the requisite notices by United States mail, publication and otherwise; and after a full and fair hearing to all of the property owners generally and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body finds that the public health, safety and general welfare will be best served by the creation of a Planned District for a Shopping Center, as set out hereinafter;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That Chapter 1, Title XI, of the City Code of Midland, Texas, and the official zoning map of the City of Midland, Texas, are hereby amended insofar as the hereinafter described property is concerned, which is presently zoned 1F-1, One-Family Dwelling District, and O-1, Office District, and it shall be used as a Planned District for a Shopping Center, said property being described as follows:

All of Block 52, Belmont Addition, City and County of Midland, Texas.

**SECTION TWO.** That the properties described in Section One hereof, shall be subject to the following conditions:

A. That this planned district shall be subject to the regulations of the LR-2, Local Retail District, except as otherwise stated below.

B. A credit union and a four-story hotel shall be allowed to be constructed on this property, strictly subject to the conditions shown on Exhibits "A", "B", "C", and "D", which are attached hereto and incorporated herein for all purposes. The credit union shall not exceed 30 feet in height, and the hotel shall not exceed 60 feet in height. The vacant portion shown on Exhibit "A" and adjacent to Longview Avenue shall be subject to future site plan review in the same manner as prescribed for a zone change.

C. All business signs shall conform to the Midland Sign Code.

D. These two developments shall conform to the regulations of the Midland Landscape Code.

E. The alley within Block 52 must be vacated and a final plat must be submitted prior to any development on this property.

F. All driveways shall conform to the driveway standards adopted by the City.

G. The container site for the hotel shall be modified to the satisfaction of the Director of Utilities.

H. The parking layout shown on Exhibit "A" shall be considered illustrative, and the minimum number of required spaces shall be determined through the building permit process.

I. This ordinance shall not be effective until such time as all public right-of-way necessary for the development pursuant to Exhibit "A" has been vacated and abandoned by the City.

J. The City Manager is hereby authorized and directed to execute a letter addressed to J. Brian Martin at Lonestar Abstract and Title Company that recognizes the vacation and abandonment by Midland County of certain public right-of-way located east of Block 52, Belmont Addition, and outside the current City boundaries. Said letter is attached hereto as Exhibit "E" and incorporated herein for all purposes.

**SECTION THREE.** That the definitions given in the zoning regulations contained in the City Code of the City of Midland, Texas, shall be applicable to such of those terms as are used herein.

**SECTION FOUR.** The provisions of this ordinance are to be cumulative of all other

ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION FIVE.** If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION SIX.** The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION SEVEN.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the 28th day of November, A.D., 2006; and passed to second reading on motion of Council member Hailey, seconded by Council member Morgan, by the following vote:

Council members voting "AYE": Hailey, Morgan, Perry, Dingus, Canon, Dufford and Simpson

Council members voting "NAY": None

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member Morgan, seconded by Council member Hailey, on the 19th day of December, A.D., 2006, at a regular

meeting of the City Council:

Council members voting "AYE": Morgan, Hailey, Perry, Dingus, Canon and Simpson

Council members voting "NAY": None

PASSED AND APPROVED THIS 19th day of December, A.D., 2006.

Michael J. Canon, Mayor

ATTEST:

Kaylah J. McCord, City Secretary

APPROVED AS TO FORM:

Keith Stretcher, City Attorney

MIDLAND
CITY OF MIDLAND

Office of
City Manager

P.O. Box 1152
Midland, TX 79702-1152

432.685.7203
Fax 432.686.1600

December 19, 2006

J. Brian Martin
Attorney at Law
Lone Star Abstract & Title Co.
600 North Loraine St.
Midland, Texas 79701

RE: Belmont Addition, Public Right-of-Way within Midland County, Texas

Dear Mr. Martin:

Pursuant to the provisions of the Interlocal Agreement between the City of Midland, Texas and the County of Midland, Texas, our office has reviewed the County Commissioner's (for the County of Midland, Texas) minutes and Resolution dated October 27, 2003 regarding abandonment of certain alleyways and roadways in Belmont Addition, an addition to the City of Midland, Texas. Accordingly we have determined that the City of Midland, Texas has no interest, nor objection to the action of the County Commissioners regarding the abandonment of the said alleys and roadways.

Sincerely,

Rick Menchaca
City Manager

# PLANNING AND ZONING COMMISSION

## November 20, 2006

**CASE:** Z-06-028.

**REQUEST:** Hold a public hearing and consider a request for a zone change from O-1, Office District and 1F-1 to PD, Planned District for a Shopping Center.

**APPLICANT/OWNER:** SCI Investments.

**REPRESENTATIVE:** Landgraf, Crutcher and Associates.

**LEGAL DESCRIPTION:** Block 52, Belmont Addition, City and County of Midland, Texas.

**LOCATION:** Northeast corner of Longview Avenue and Belmont Street.

**ASSOCIATED CASE:** P-06-093, Belmont Addition, Section 12; V-06-015, alley vacation.

**DETAILS OF REQUEST:**

1. The applicant has purchased this property, and wishes to develop a hotel and a credit union. The west half of Block 52 is currently zoned O-1 District, and the east half is zoned 1F-1 District. While hotels and credit unions are allowed uses in the O-1 District, the hotel proposed is four stories tall. This exceeds the maximum height of the O-1 District. In order to provide maximum flexibility while protecting the neighborhood, we have recommended that the applicant apply for a Planned District for a Shopping Center, subject to the regulations of the LR-2 District. The applicant has submitted four site plans, Exhibits A, B, C and D. The applicant has also submitted an application to replat this property, and a request to vacate the north/south alley that runs through Block 52.

**SURROUNDING ZONING AND LAND USE:**

2. The land abutting the subject property is vacant except for one single-family home on the north side of Belmont Avenue. The block to the north is zoned O-1 District and 1F-1 District. The land to the east is outside the City limit, where there are no zoning regulations. To the south is the Wal-Mart parking lot and fuel station. To the west and northwest the zoning is LR-2 District.

## ANALYSIS:

3. The area located near the intersection of Rankin Highway and Interstate 20 has seen significant growth since the construction of Wal-Mart, which is located immediately south of this property. We believe that this trend will continue, given our strong overall economy and the lack of retail opportunities in this area. Currently, the retail zoning located along the east side of Rankin Highway extends to a depth of one block, or 300 feet. Farther north, the retail depth is only one-half block. This depth is insufficient for modern retailing needs of the scale that we anticipate. Unfortunately, it is unlikely that a single developer will acquire multiple blocks of land that can be consolidated into an overall redevelopment plan by vacating certain streets and alleys. More likely, we anticipate that redevelopment will occur on a more piecemeal basis. Another issue to consider is the land located east of this property. It is located outside of the City limit in a Windowpane area. It is also located immediately north of Wal-Mart. We envision the redevelopment of this area into retail and office uses. The City Council has shown a strong interest in annexing this Windowpane in the near future. This would allow ample opportunity for additional business zoning. Finally, the block to the west is already zoned for retail use. Therefore, we believe that retail zoning is appropriate for this block. However, the LR-2 District also limits the maximum building height to 2.5 standard stories, or 28.75 feet, which cannot accommodate a four-story hotel. We are also concerned for protecting the area to the east, since additional retail and mixed-use zoning is anticipated. For these reasons, we believe that a Planned District for a Shopping Center can provide some protection for the land to the east while accommodating the applicant's proposal.

## SITE PLANS:

4. Please refer to the attached site plan, Exhibit A. There is something very unique about this site plan that the staff has never encountered. The credit union and the associated parking and drive-through lanes are located on the west half of Block 52. This does not create any unusual issues. However, the hotel is located not just on the eastern half of Block 52, but it extends 145 feet beyond the City limit line into the Windowpane area. The hotel site also includes the 60-foot right-of-way for Colorado Avenue that appears to have been vacated by Midland County. This condition creates some issues that cannot be overcome in a timely manner. The City has no zoning jurisdiction outside the City limit. Therefore, the City cannot enforce the portion of the development on Exhibit A that is located outside the City limit. Regarding the sign location on Exhibit A, it appears to be located on top of a fiber optic cable. We would strongly suggest that the sign be moved so as not to interfere with this cable.

The annexation process would take at least 120 days, but the developers are trying to complete the zoning process in 2006. We have decided the best approach we can take, until the entire hotel site can be annexed, is to review the site plan as though it is entirely within the City limit, and rely upon the integrity of the developer to adhere to the portion located outside the City limit.

**EXHIBIT A:**

5. The credit union site, as shown on the western half of Exhibit A, is bounded by Summit, Belmont and Longview Streets. Driveway access is proposed from Belmont and Longview Streets. The site plan does not indicate the width, spacing or curb return radii associated with these driveways. We recommend that these driveways conform to the Driveway Standards of the City of Midland. The indicated 15-foot building setback line is consistent with the LR-2 District standards. There are five drive-though lanes on the north side of the credit union building, and one on the east side. There appears to be adequate space for internal maneuvering. There is one driveway onto the alley located east of the property. Since this driveway is to be vacated, the 25-foot driveway width limitation will not apply. The vacation should be completed prior to approval of the associated replat. The credit union is proposed to contain 3,969 square feet of floor area. Office buildings of this size require a minimum of 10 parking spaces, whereas 23 spaces are shown. A detailed landscaping plan has not been provided. However, there appears to be ample areas on the site to meet the Landscaping Code. A detailed landscaping plan will be reviewed through the building permit process. No business signs for the credit union are shown on Exhibit A, but the location of signs is shown on Exhibit B. We recommend that all business signs conform to the conditions of the Sign Code. A blanket refuse collection easement will be dedicated through the plat. Therefore, a site for solid waste containers has been established northeast of the building. The Exhibit A indicated an enclosure, but the height and materials are not shown. This information must be provided before this request is considered by the City Council.

   Exhibit B illustrates two elevation views of the credit union. It indicates a maximum building height 32 feet, but the LR-2 District limits the height to 28.75 feet. However, the credit union building is setback 55 feet from the nearest street. Therefore, we have no objection to the slight increase in building height. The exterior building materials include synthetic stucco, stone and glazing. A clay tire or metal roof is proposed. These materials, combined with the design and landscaping should provide an attractive building for this location.

**HOTEL SITE:**

6. Please refer again to Exhibit A that illustrates the proposed hotel site. The four-story building is proposed to contain 69,410 square feet and 102 rooms. Driveway access is proposed from all three surrounding streets. 102 parking spaces are required, whereas 112 spaces are shown. The main entrance is shown internal to the site along the south side of the building, and the swimming pool is located at the northeast corner of the site. Generally, when planned districts have been approved that allow taller buildings than otherwise allowed, we specify an increase in building setback to avoid an overcrowded condition. In this instance, for a 59-foot tall building, we would typically specify a minimum front yard setback of 105 feet. The setback from the south property line, which the hotel faces, is 190 feet. However, Exhibit A shows a 15-foot setback from the north property line, and a 10-foot setback from the east property line. Regarding the east property line, there is another 55 feet of land between the building and an alley. It is likely that that this alley may be vacated in order to allow redevelopment on this side of the building. We have no suggestions on addressing the 15-foot setback on the north side of the building. As stated earlier, we cannot regulate the sign located outside the City limit. The next exhibit illustrates wall signs on two sides of the building. The area of these signs is well below the maximum permitted area of 15 percent of the wall area. A dumpster location is shown near the northwest corner of the site. Based on the location, it does not appear that City collection trucks will be able to service these containers. The applicant should modify the site plan to the satisfaction of the Utilities Department.

**EXHIBITS C and D:**

7. Exhibits C and D illustrate the elevation views of the proposed hotel. Overall, it appears to be a very attractive building. A variety of building materials add a high degree of interest. Exterior building materials include brick, cultured stone, E.I.F.S., and glazing. Wall signs are shown on the front and right side elevations. We see no objection to the conditions shown on Exhibits C and D.

**STAFF RECOMMENDATION:**

We recommend approval of this request for a zone change from O-1, Office District and 1F-1, One-Family Dwelling District to PD, Planned District for a Shopping Center, subject to the following conditions:

A. This planned district shall be subject to the regulations of the LR-2, Local Retail District, except as otherwise stated below.

B. A credit union and a four-story hotel shall be allowed to be constructed on this property, subject to the conditions shown on Exhibits A, B C and D.

C. All business signs shall contain to the Midland Sign Code.

D. These two developments shall conform to the regulations of the Landscape Code.

E. The alley in Block 52 shall be vacated and a final plat shall be approved prior to any development on this property.

F. All driveways shall conform to the driveway standards adopted by the City.

G. The height and materials used to screen the solid waste containers must be specified. The container site for the hotel shall be modified to the satisfaction of the Utilities Director.

H. The parking layout shown on Exhibit A shall be considered illustrative, and the minimum number of required spaces shall be determined through the building permit process.

I. We recommend that the 40-foot sign be relocated to as not to straddle the fiber optic cable shown on Exhibit A.

Cameron Walker, AICP
Planning Division Manager
Department of Development Services

Jim Compton, Senior Planner
Department of Development Services

**Attachments:**

Application
Maps
Exhibits A, B, C and D

Case Number: Z-06-028

# CITY OF MIDLAND
## Planning Division

## APPLICATION TO CHANGE ZONING CLASSIFICATION

Applicant: Landgraf, Crutcher and Associates, Inc.

Address: 521 N. Texas
Street Address (Phone)

Odessa TX 79701
City State Zip Code

Property Owner: SCI Investments

Address: 500 E. Illinois, Ste 200 432-570-5100
Street Address (Phone)

Midland TX 79701
City State Zip Code

Street address and Legal Description of property (complete Lot, Block, and Subdivision Name description below, or, if not in a recorded plat, attach a Metes and Bounds Description. Describe by tracts if more than one zoning district is requested): ~~Being 1.10 acre tract of land located in~~ Belmont Addition, Block 52, ~~Section 2, Block 39, T-2-S & Railroad Company Survey, Midland, Texas~~ City and County of Midland, Texas.

Reason for requesting a zone change: Rezone for Hotel Site
PDSC per Drew Crutcher

PRESENT ZONE: 1F1 REQUESTED ZONE: ~~OI O-2, per Joe Tucker~~
(List by tracts if more than one zoning district is requested)

Present Use of Property:
Vacant

Proposed Use of Property: Hotel Site

How will zone change affect the public health, safety and welfare? Will allowed proper use of property

Describe how conditions affecting the property have changed since it was designated its present zone: No longer suitable for single family use

Will a Specific Use Permit with Term for alcoholic beverages sales be needed: ___ Yes ___ No

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OCT 16 2006
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NOTE: If property owner is to be represented by an authorized agent, the agent should sign the property owner's name and his own on the lines provided above and complete the affidavit below.

A $250.00 filing fee shall accompany all requests for a single, standard zone change request. A multiple zone change proposal shall incur an additional $25.00 fee per district requested in excess of one. A $400.00 filing fee shall accompany all requests for a single PD, Planned District zone change request. A multiple PD proposal shall incur an additional $50.00 fee per additional district. If no public hearing is called, 80% of the fee will be refunded. If needed, a Traffic Impact Analysis may be required and a fee of up to $500.00 will be assessed.

**NOTE: CD of Site Plan must be submitted in .pdf format 10 days prior to hearing before City Council, in addition to the required eight (8) paper copies for internal routing purposes.**

Property Owner: SCI Investments Date: October 16, 2006

By: Landgraf, Crutcher and Associates, Inc. Date: October 16, 2006
(If applicable - see note)

State of Texas §
County of Midland §

Before me, the undersigned authority, on this day personally appeared Joe M. Tucker, P.E. who, being by me duly sworn, upon oath says: That he is authorized by SCI Investments., the owner of the above described property, to fully represent him in this application and that he has the legal right, power and authority to sign said owner's name hereto as his attorney in fact.

Joseph M. Tucker
(Signature of Affiant)

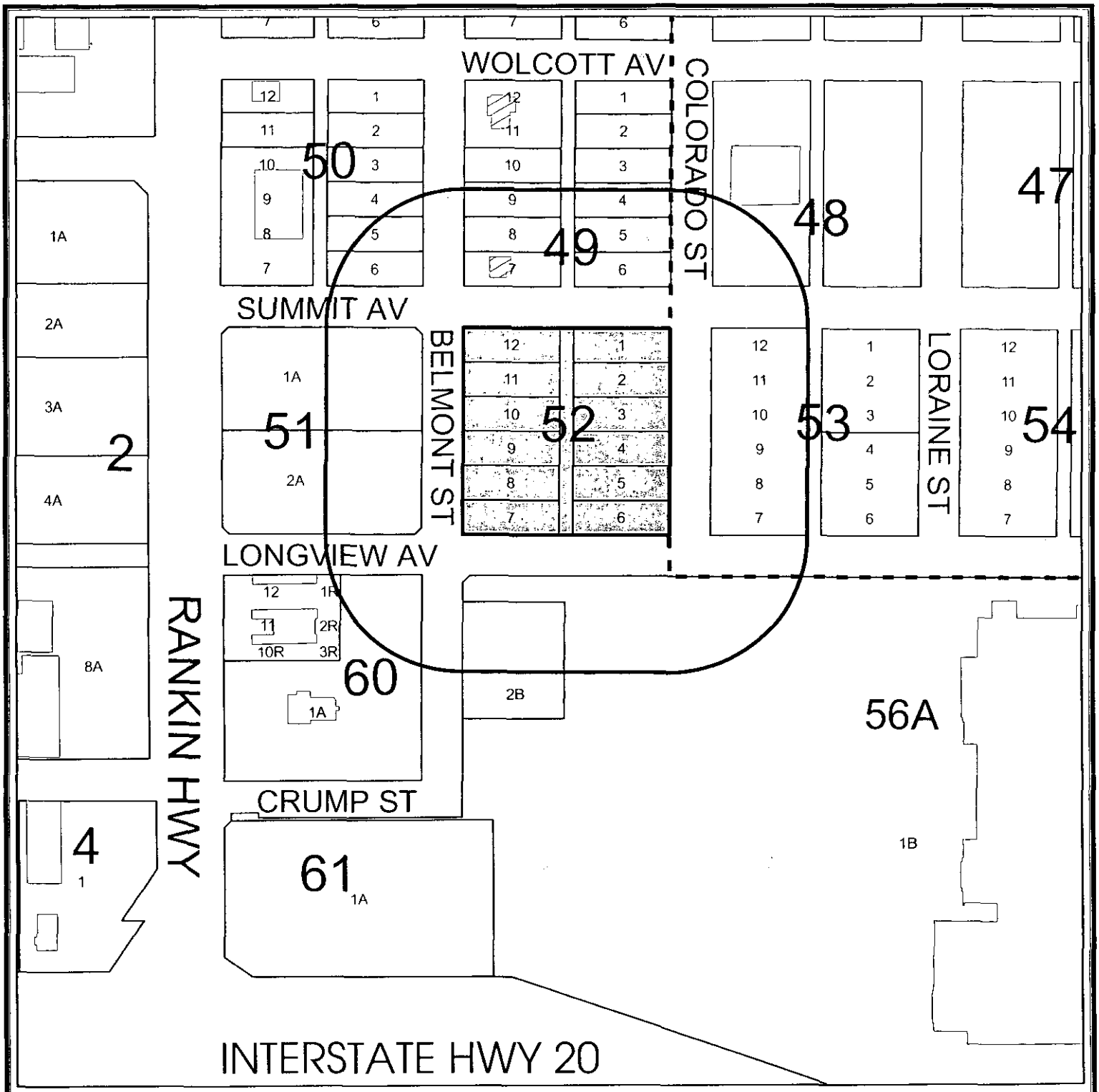
Subscribed and sworn to before me, by the said Joe M. Tucker, P.E. this 16 day of October, 20 06 to certify which witness my hand and seal of office.

Lena A. Renfro
Notary Public, Ector County, Texas

LENA A RENFRO
Notary Public, State of Texas
My Commission Expires
July 01, 2008

FOR OFFICE USE ONLY
Rec'd By: DC Date: 10/16/06
Assigned: JC
For: P+Z On: 11-6-06

****Application will not be considered for scheduling until reviewed by a planner.****




# NOTIFICATION WITHIN CITY LIMITS ONLY

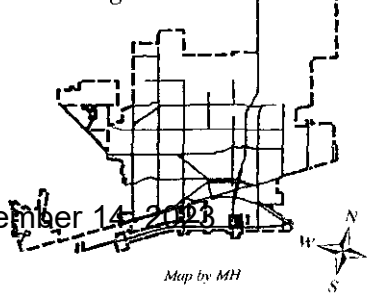
**Z - 06 - 028** **Scale: 1" = 200'**

Consider a request for a zone change from 1F-1, One-Family Dwelling District and from O-1, Office District, to PD, Planned District for a Shopping Center on Block 52, Belmont Addition, City and County of Midland, Texas.

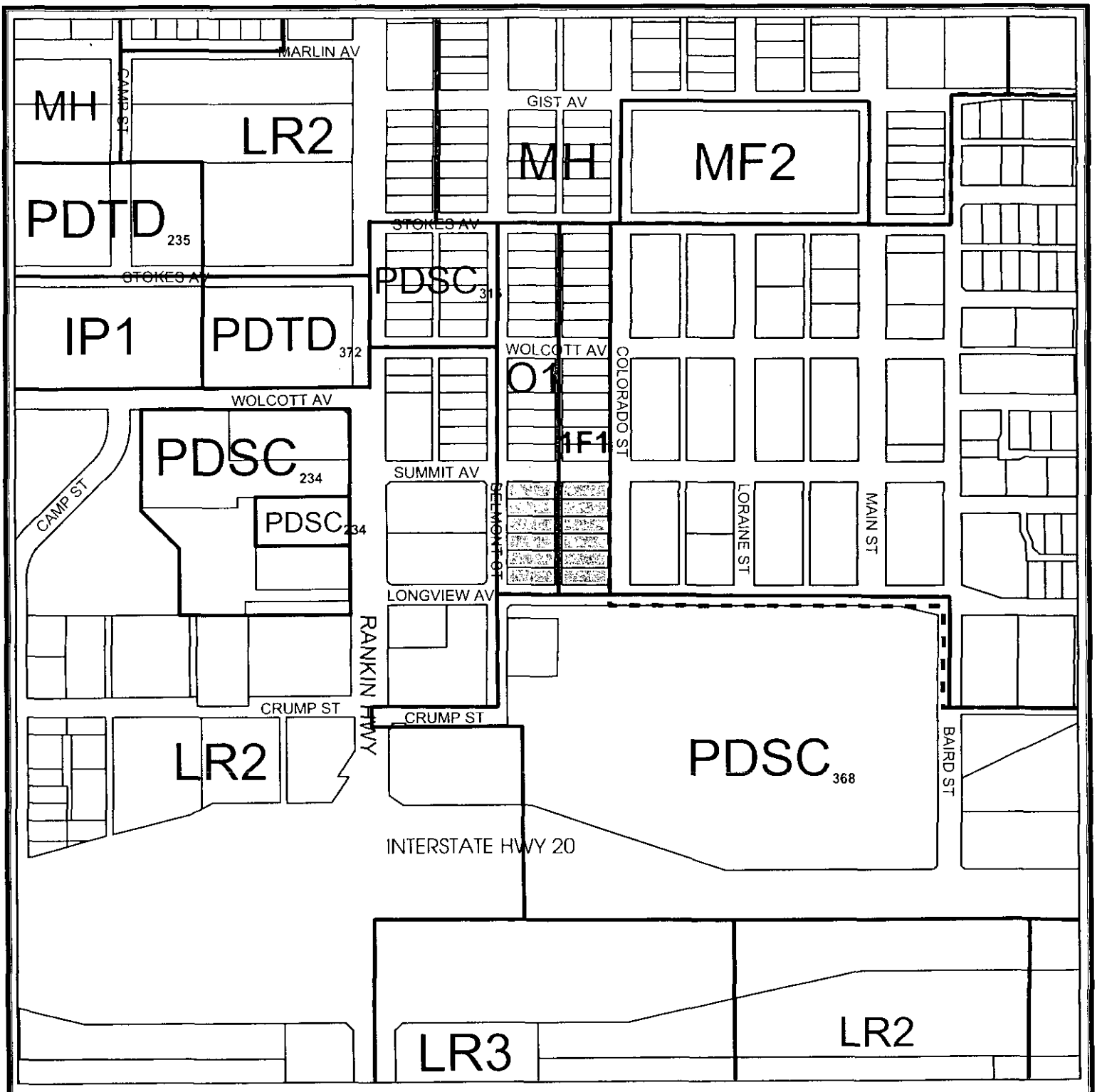
**LEGEND**

- CITY LIMITS
- 200 FT. LEGAL NOTICE LIMIT
- CITY PARCEL
- COUNTY PARCEL
- PUBLIC BLDGS
- PRIVATE BLDGS

*City of Midland, Texas*
*Planning Division*




*Map by MH*




# ZONING MAP

**Z - 06 - 028** **Scale: 1" = 400'**

Consider a request for a zone change from 1F-1, One-Family Dwelling District and from O-1, Office District, to PD, Planned District for a Shopping Center on Block 52, Belmont Addition, City and County of Midland, Texas.

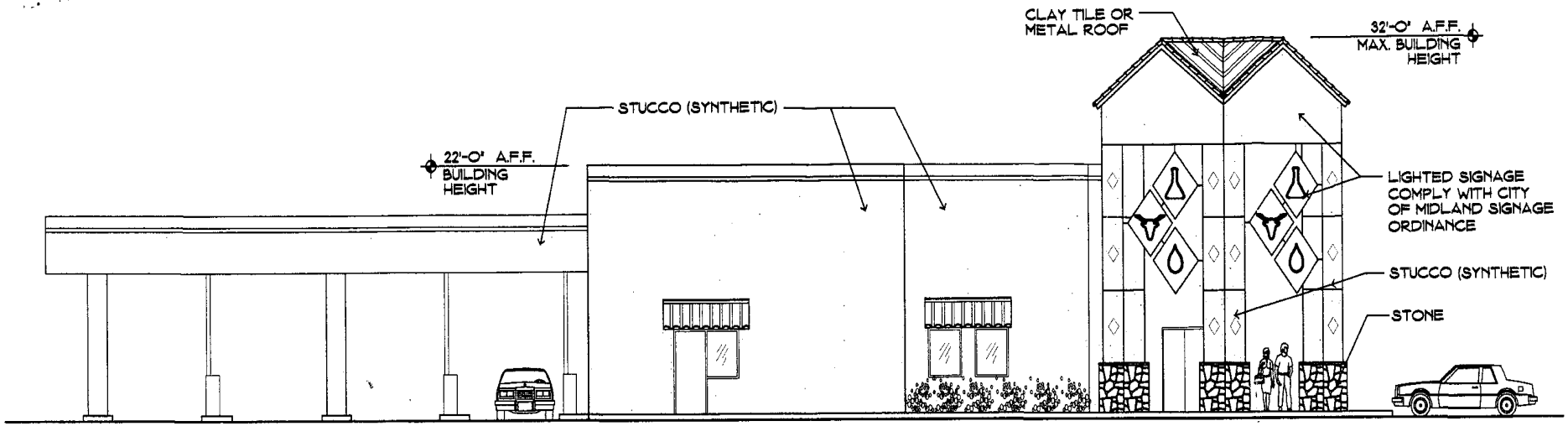
## LEGEND

ZONING | PARCELS | CITY LIMITS

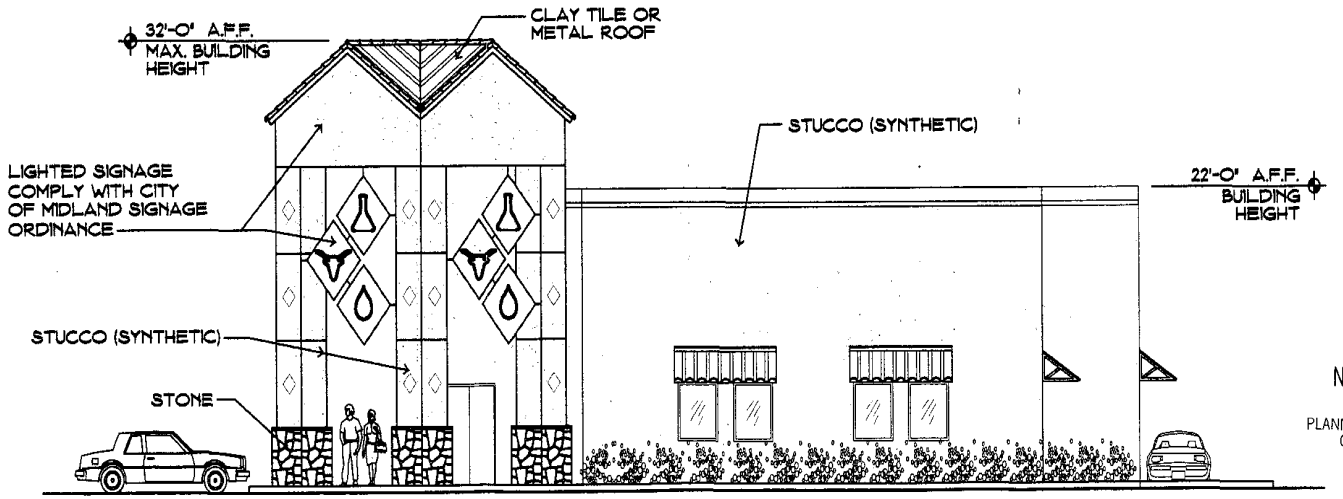
SPECIFIC USE PERMITS | PUBLIC BLDGS

**ZONING DISTRICTS:**

| | | | |
|---|---|---|---|
| FD | FUTURE DEVELOPMENT | BP | BUSINESS PARK |
| PD | PLANNED DISTRICT | P | PARKING |
| AE | AGRICULTURE ESTATE | 01, 02 | OFFICE |
| CE | COUNTRY ESTATE | NS | NEIGHBORHOOD SERVICE |
| 1F1, 1F2, 1F3 | ONE-FAMILY DWELLING | C1, C2, C3 | GENERAL RETAIL COMMERCIAL |
| MH | MOBILE HOME DWELLING | | |
| TH | TOWNHOUSE DWELLING | IP ,IP1, IP2, IP3 | INDUSTRIAL PARK |
| 2F | TWO-FAMILY DWELLING | LI | LIGHT INDUSTRY |
| MF1, MF2 | MULTIPLE FAMILY DWELLING | HI | HEAVY INDUSTRY |




B / X1 BELMONT STREET ELEVATION
N.T.S.




A / X1 LONGVIEW AVE ELEVATION
N.T.S.

November 14, 2023

48.29

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PLANNING & DEVELOPMENT
CITY OF MIDLAND

EXHIBIT B

PACKET

# COMPLEX COMMUNITY FEDERAL CREDIT UNION

P&A PATE & ASSOCIATES
ARCHITECTS - PLANNERS, INC.
4000 W. ILLINOIS, SUITE 202
MIDLAND, TEXAS 79703, (432) 697-0037

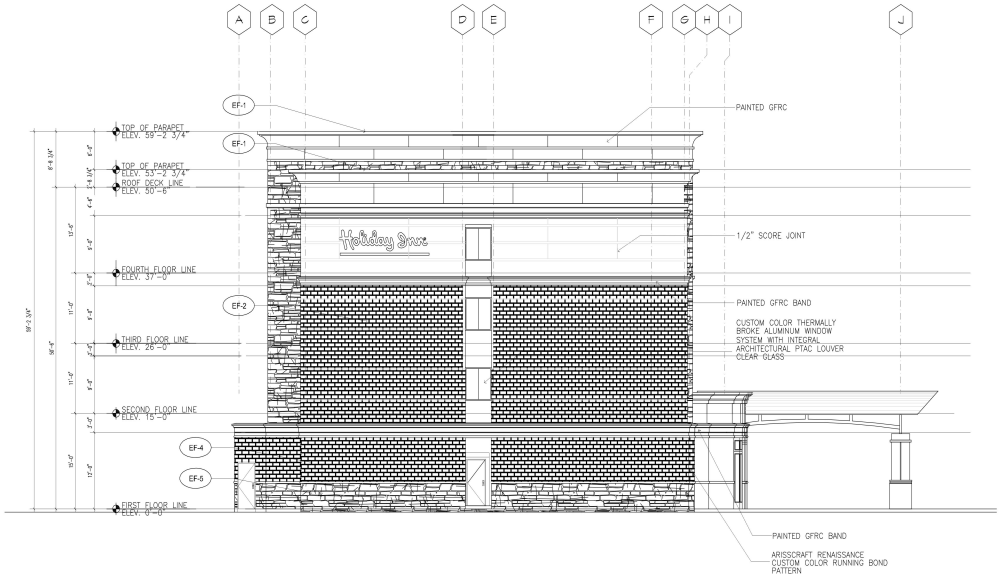
CASE NO. Z-06-028




## 01 REAR ELEVATION
SCALE : 3/32" = 1'-0"

C J– CONTROL JOINT 1/2"
S J– SCORE JOINT 1/2"

GFRC – GLASS FIBER REINFORCED CONCRETE
EIFS – EXTERIOR INSULATED FINISH SYSTEM
PTAC – PORTABLE TERMINAL AIR – CONDITIONING




## 02 LEFT ELEVATION
SCALE : 3/32" = 1'-0"

### EXTERIOR FINISH SCHEDULE

| FINISH NO. | MATERIAL | COLOR | NOTES |
|---|---|---|---|
| EF-1 | GFRC | DRYVIT #310: CHINA WHITE | PAINT COLOR TO MATCH E.I.F.S. |
| EF-2 | E.I.F.S. | DRYVIT #472A: CAPTAIN | |
| EF-3 | E.I.F.S. | DRYVIT #456: OYSTER SHELL | |
| EF-4 | BRICK | NATURAL | NATURAL COLORED GROUT |
| EF-5 | CULTURED STONE | NATURAL/AUSTIN | NATURAL COLORED GROUT |
| | | | |
| | | | |
| GUTTER & DOWNSPOUT | | WHITE | |
| WINDOWS & DOORS | WOOD/VINYL | WHITE | |

NOTE:

GFRC - GLASS FIBER REINFORCED CONCRETE


OWNERSHIP AND USED OF DRAWINGS:

THESE DRAWINGS WHETHER PRINTED OR ELECTRONIC IN FORM, PREPARED BY THE ENGINEER/B.W. HUDSON ENGINEERS AND ASSOCIATES, ARE INSTRUMENTS OF SERVICE THROUGH WHICH THE CONTRACTOR SHALL EXECUTE THE WORK DESCRIBED HEREIN. ONLY THE ENGINEER SHALL OWN, CLAIM AUTHORSHIP, CLAIM COPYRIGHT OR RETAIN ANY OTHER RESERVED RIGHTS ON THESE DRAWINGS. UNLESS OTHERWISE AGREED TO OR PERMITTED IN WRITING BY THE ENGINEER, THESE DRAWINGS SHALL NOT BE COPIED, REVISED OR TRANSMITTED THIRD PARTY.

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OFFICIAL SUBMISSION OF THESE PLANS TO REGULATORY AGENCIES SHALL ONLY MEAN COMPLIANCE TO REGULATORY REQUIREMENTS AND SHALL NOT BE CONSTRUED AS PUBLICATION OR LOSS OF ENGINEER'S COPYRIGHTS OR OTHER RESERVED RIGHTS.



B.W. HUDSON ENGINEERS AND ASSOCIATES
BUILDING DESIGN RENDERING
BLUE PRINTING SCANNING
SCALE MODELS-ANIMATIONS
217 W. Main Street, Suite 100
Grand Prairie, Texas 75050
Tel No.: (972) 264-0790
Fax No.: (972) 264-7738
bhudson01@sbcglobal.com


November 14, 2023

OWNER/DEVELOPER:
48.30

Holiday Inn
FULL SERVICE
MIDLAND, TEXAS

ARCHITECT'S SEAL

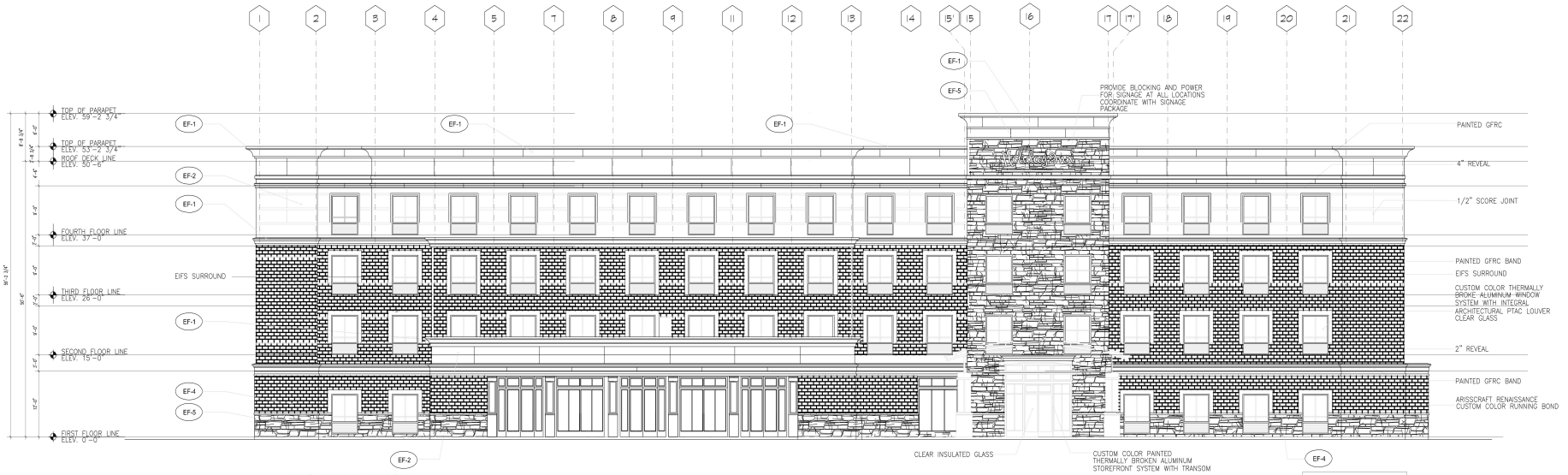
PROJECT STATUS:
FOR CONSTRUCTION
PROJECT MANAGER:
BILLY HUDSON
DESIGN COORDINATOR:
DRAWING DONE BY:

REVISION DATE:
RAM: 09-11-06
CMC: 10-02-06
SDO: 11-11-06

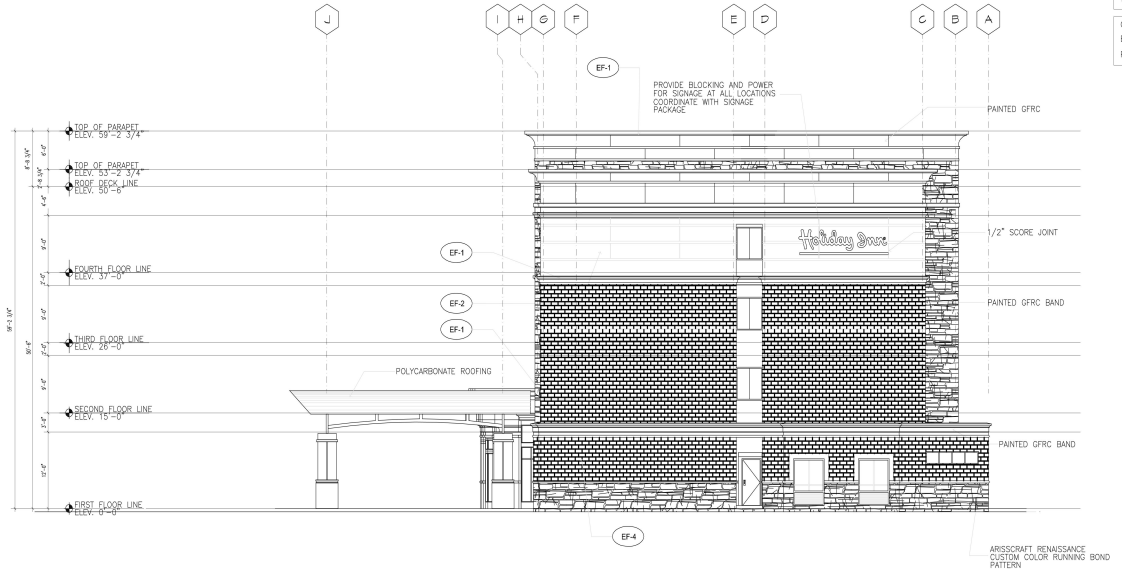
DRAWING NUMBER
D3.11

PLOT DATE:
11/11/2006

PACKET




01 FRONT ELEVATION
SCALE : 3/32" = 1'-0"




02 RIGHT SIDE ELEVATION
SCALE : 3/32" = 1'-0"

## EXTERIOR FINISH SCHEDULE

| FINISH NO. | MATERIAL | COLOR | NOTES |
|---|---|---|---|
| EF-1 | GFRC | DRYVIT #310: CHINA WHITE | PAINT COLOR TO MATCH E.I.F.S. |
| EF-2 | E.I.F.S. | DRYVIT #472A: CAPTAIN | |
| EF-3 | E.I.F.S. | DRYVIT #456: OYSTER SHELL | |
| EF-4 | BRICK | NATURAL | NATURAL COLORED GROUT |
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| | | | |
| | | | |
| GUTTER & DOWNSPOUT | | WHITE | |
| WINDOWS & DOORS | WOOD/VINYL | WHITE | |

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Fax No.: (972) 264-7738
bhudson01@sbcglobal.com

November 14, 2023

OWNER/DEVELOPER:
48.31

Holiday Smr
FULL SERVICE
MIDLAND, TEXAS

ARCHITECT'S SEAL

PROJECT STATUS:
FOR CONSTRUCTION
PROJECT MANAGER:
BILLY HUDSON
DESIGN COORDINATOR:
DRAWING DONE BY:

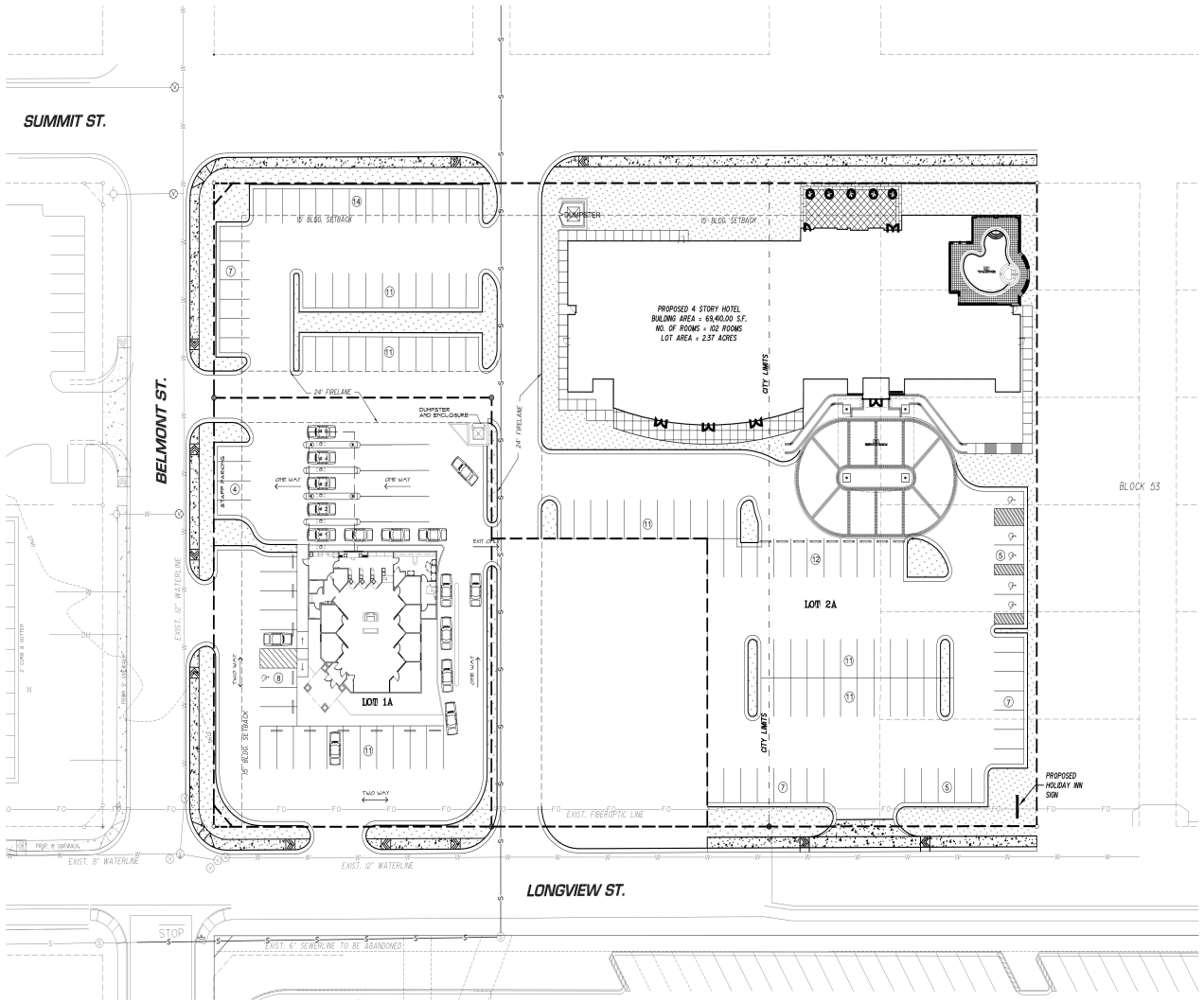
REVISION DATE:
RAM : 09-11-06
CMC : 10-02-06
SDO : 11-11-06

DRAWING NUMBER
D3.10

PLOT DATE:
11/11/2006

PACKET

# BELMONT ADDITION, SECTION TWELVE





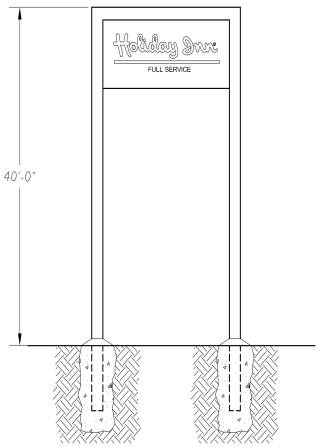


LOT 1A

| | |
|---|---|
| LOT AREA | 29,949 S.F. |
| BUILDING SQ. FT. | 3,969 S.F. |
| REQUIRED PARKING | 10 SPACES |
| PROVIDED PARKING | 23 SPACES |
| LANDSCAPE AREA | 3,667 S.F. |

LOT 2A

| | |
|---|---|
| LOT AREA | 87,646 S.F. |
| BUILDING SQ. FT. | 69,410.0 S.F. |
| REQUIRED PARKING | 112 SPACES |
| PROVIDED PARKING | 112 SPACES |
| LANDSCAPE AREA | 17,029 S.F. |




*POLE SIGN DETAIL*
SCALE: NONE

PACKET 48.32 November 14, 2023

*JOB # 2006-092*

Copyright 2006 Landgraf, Crutcher and Associates, Inc.

LCA *Landgraf, Crutcher and Associates, Inc.*
TRANSPORTATION • ENVIRONMENTAL • CIVIL ENGINEERS ODESSA, TEXAS
Phone. # (432) 332-5058 Fax # (432) 332-8812

# City Council Agenda

Approved for Agenda:
**MJohnston**
City Manager's Office

**MEETING DATE:** November 28, 2006

**TO:** CITY COUNCIL/CITY MANAGER

**FROM:** Cameron Walker, Planning Division Manager

**SUBJECT:** *Z-06-028, Zone Change*

---

**Purpose:**
Hold a public hearing at 11:09 a.m. and consider an ordinance on a request by SCI for a zone change from O-1, Office District and 1F-1, One-Family Dwelling District to PD, Planned District for a Shopping Center.

**Recommended City Council Action:**

☒ Approve ☐ Deny ☐ Direction/Informational

**Fiscal Impact:**
N/A

**Discussion:**
The applicant wishes to construct a credit union and a four-story hotel on this property. The current zoning does not allow the hotel use or the four-story height. Consequently, the applicant is requesting a zone change from 1F-1 and O-1 Districts to Planned District for a Shopping Center, subject to the LR-2 District regulations and to site plan review. Credit unions and hotels are allowed uses in the LR-2 District, but the maximum building height is limited to 28.75 feet. The reason for the planned district is to allow a 59-foot tall building. The applicant has submitted three site plans: Exhibits A, B, C, and D. Exhibit A is a plan view of both buildings. All of the conditions associated with the credit union, located on the west portion of the tract, appear reasonable. Although the credit union building is 32 feet tall, the building setback is over 50 feet, so the slight increase in building height is not an issue. The credit union also includes a total of six drive through lanes. Due to a possible traffic conflict at the single drive through window, we recommend that the driveway onto the alley, which is to be vacated and used as a driveway, be deleted from the site plan.

However, the hotel falls not only on the east half of the tract, but extends an additional 145 feet eastward, which is beyond the City limit line. Since the City has no zoning authority outside the City limit, the portion of Exhibits A, C, and D that lie outside the City cannot be enforced. We can only rely on the integrity of the developer to follow the conditions shown on these site plans. Given the investment into this facility, be would be very surprised if the developer would not complete the project as shown on the site plans.

The City Council has used planned districts to allow taller buildings where an increase in building setback is provided. Under the standard policy, a 59-foot tall building would require a 105-foot front setback. The distance from the south side of the hotel to Longview Avenue is 190 feet. However, the setback from the north property line, which is also a front yard, is only 15 feet, and the eastern setback is only 10 feet. Thus, the proposed building will not meet the standard policy regarding building setbacks.

Exhibit B illustrates the elevation views of the credit union. It is to be constructed of synthetic stucco, stone and glazing, with a tile or metal roof. The credit union site will be subject to the regulations of the Sign Code and the Landscape Code. Exhibits C and D illustrate the elevation views of the hotel. Exterior building materials include brick, E.F.I.S, cultured stone and glazing. These materials along with the design features should provide an attractive hotel that will be an asset to the area. The regulations of the Sign Code and Landscaping Code will also apply.

CDS

# City Council Meeting

**Item Number:** 49

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Daniel Humbert, Planner

**Subject:** AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 18, BLOCK 1, EDWARDS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS, FROM MF-16, MULTIPLE-FAMILY DWELLING DISTRICT TO SF-3, SINGLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED ON THE WEST SIDE OF NORTH DALLAS STREET, APPROXIMATELY 200 FEET NORTH OF MISSISSIPPI AVENUE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DISTRICT 2) (DEVELOPMENT SERVICES)

---

**Purpose:**

The applicant, Steven Villela, is requesting a Zone Change from MF-16, Multiple-Family Dwelling District to SF-3, Single-Family Dwelling District to construct a house on the property.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

No city funds would be required for this project.

**Discussion:**

**Current Zoning:**

MF-16, Multiple-Family Dwelling District.

**Surrounding Zoning and Land Use:**

The properties to the north, east, south, and west are all zoned MF-16, Multiple-Family Dwelling District, and the location of single-family residences.

**Analysis:**

The property owner plans to construct a single-family residence on the property which the current zoning classification does not allow.

The previous zoning ordinance allowed single-family homes to be constructed in the MF-16, Multiple-Family Dwelling District. As of July 1, 2019, the updated zoning ordinance does not allow single-family residential uses with the MF-16, Multiple-Family Dwelling District. Based on the current and surrounding land uses in this neighborhood a zone change to SF-3, Single-Family Dwelling District is compatible with existing and adjacent land uses and lot dimensions.

This proposed zone change has been circulated to the respective City departments for internal review and their comments, conditions, and requirements are as follows:

**Fire: (Approved)**

No comments

**Building: (Approved)**

No Oil and Gas issues.

**Engineering:(Approved)**

No objections to zoning/zone change. [For Applicant's Information Only.]

**Code: (Approved)**

No issues. All future structures must adhere to 2018 International Building Codes, the 2015 International Energy Code, the 2020 NEC requirements, the 2015 International Fire Codes, local city ordinances, zoning requirements, established setbacks, oil and gas considerations, and floodplain requirements if necessary. Code versions are subject to change depending on time of new code edition adoption in the City of Midland and date of permit application.

**Transportation: (Approved)**

No objections to zoning/zone change. [For Applicant's Information Only.]

**Planning:**

The Tall City Tomorrow Comprehensive Plan designates the existing MF-16 portion Urban

Residential-Medium (UR-M), which calls for a mix of housing types, including single-family detached, single-family attached, and townhouse uses. Therefore a single-family-dwelling would be consistent with this designation.

Staff recommends approval of this zone change from MF-16, Multiple-Family Dwelling District to SF-3, Single-Family Dwelling District subject to condition A.

**Condition:**

**A. That the use and development of this property shall conform to the regulations of the SF-3, Single-Family Dwelling District.**

**Letters of Objection:**

As of November 1, 2023, staff has received no letters of objection for this request.

**Attachments:**

Application
Maps
Photos

Morris Williams Jr.

City Manager's Office

**ORDINANCE NO. _____**

**AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 18, BLOCK 1, EDWARDS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS, FROM MF-16, MULTIPLE-FAMILY DWELLING DISTRICT TO SF-3, SINGLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED ON THE WEST SIDE OF NORTH DALLAS STREET, APPROXIMATELY 200 FEET NORTH OF MISSISSIPPI AVENUE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION**

**WHEREAS**, the City Planning and Zoning Commission and the Governing Body of the City of Midland, in compliance with the City Charter, the City Code, and State law, have given the requisite notices by United States mail, publication and otherwise; and after a full and fair hearing to all of the property owners generally and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body finds that the public health, safety and general welfare will be best served by rezoning Lot 18, Block 1, Edwards Addition, City and County of Midland, Texas (the "Property") to SF-3, Single-Family Dwelling District, as set out hereinafter;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the Zoning District Map of the City of Midland, Texas, is hereby amended to rezone the Property from MF-16, Multiple-Family Dwelling District to SF-3, Single-Family Dwelling District.

**SECTION TWO.** That the definitions given in the zoning regulations contained in the City Code of the City of Midland, Texas, shall be applicable to such of those terms as are used herein.

**SECTION THREE.** The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as

that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

**SECTION FOUR.** If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

**SECTION FIVE.** The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

**SECTION SIX.** The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2023; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2023, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2023.

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Cristina Burns, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

MIDLAND Planning Division

**Zone Change/Planned District Amendment/Site Plan Approval**

Project Number: Z-23-0347

Case Number:

| **Applicant** *(if acting as Agent, see affidavit on page 2)* Printed Name: Steven Villela | | Phone (432) 235 4752 Email steven@stevenvillela.com | |
|---|---|---|---|
| Address P.O. Box 10721 | City Midland | State TX | Zip 79702 |

| **Property Owner** Printed Name: Steven Villela | | Phone (432) 235 4752 Email steven@stevenvillela.com | |
|---|---|---|---|
| Address P.O. Box 10721 Midland, TX 79702 | City Midland | State TX | Zip 79702 |

| **Representative** *(if different from Applicant or Property Owner)* Firm: Printed Name: | | Phone ( ) Email | |
|---|---|---|---|
| Address | City | State | Zip |

**Street Address:** 909 N. Dallas Midland, TX 79701

**Legal Description**
Lot: 18 Block: 1 Subdivision: Edwards

| **Current Zoning: MF-16** | **Proposed Zone: SF-3** *(List by tracts if more than one district is requested)* |
|---|---|

**Reason for Zone Change Request:** Not complaint with MF-16 size requirements and would be what was previously built their and comparable to neighbors

**Present Use of Property:** Residential/Sigle Family Dwelling

**Proposed Use of Property:** Residential/Sigle Family Dwelling

**How would this zone change affect the public health, safety and welfare?** NA

**Describe how conditions affecting the property have changed since present zoning designation:** NA

**Submittal and Fees**

**Items to be submitted with this application form:**

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Site Plan
- Digital Copies of Site Plan (PDF/JPEG)

| **Signature** *(by property owner only – authorized agent must sign affidavit below)* | |
|---|---|
| Applicant (signature): Steven Villela | Date: Sep 19, 2023 |
| Applicant (printed): Steven Villela | |
| Property Owner (signature): Steven Villela | Date: Sep 19, 2023 |
| Property Owner (printed) : Steven villela | |

*The Zone Change/Planned District Amendment/Site Plan Approval shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.*

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appear Sep 19, 23 who, being by me duly sworn, upon oath says: That (s)he is the owner of 909 N Dallas or authorized by _____, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

_____
Authorized Agent (*signature*)

Subscribed and sworn to before me, this_____day of_____, 20____, to certify which witness my hand and seal of office.

_____
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

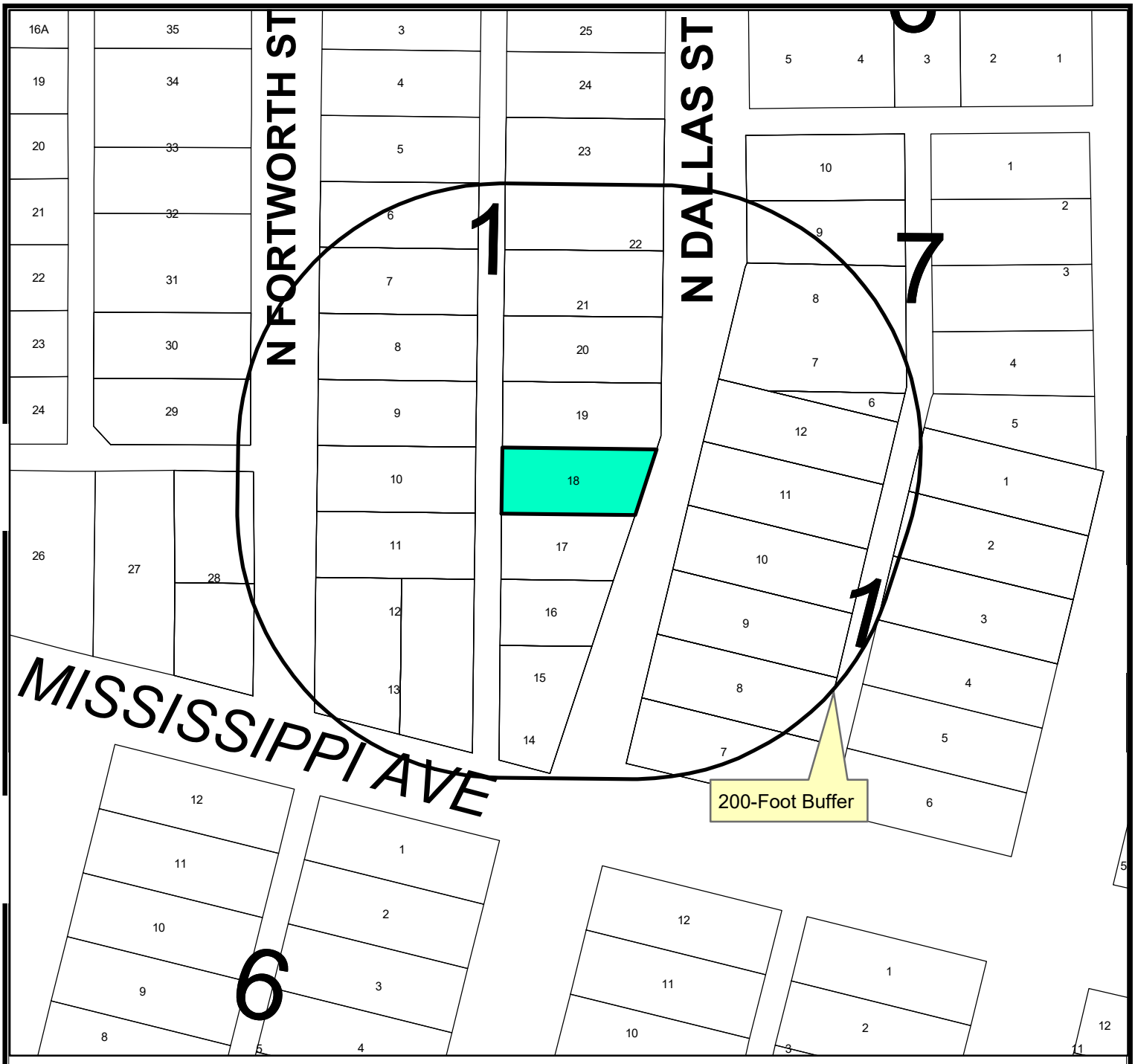
**FOR OFFICE USE ONLY**

| | |
|---|---|
| ☑ Property Owner Authorization | ☑ Dimensioned Site Plan |
| ☐ Application Fee Waived (District 2) Per Interim Director | ☑ Plans in Digital Format (PDF/JPEG) |
| Check #_____ | |
| Received By: Landon Ochoa | Date: SEP 19 2023 |

BY: .....



****Application will not be considered for scheduling until reviewed by a planner.****




# LOCATION MAP

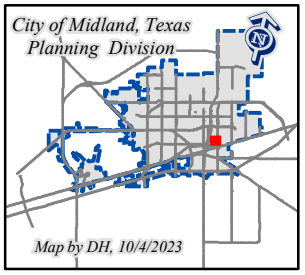
**Z-23-0347** **Scale: 1" = 1,297'**

A request by Steven Villela for a Zone Change from MF-16, Multiple-Family Dwelling District to SF-3, Single-Family Dwelling District on Lot 18, Block 1, Edwards Addition, City and County of Midland, Texas.

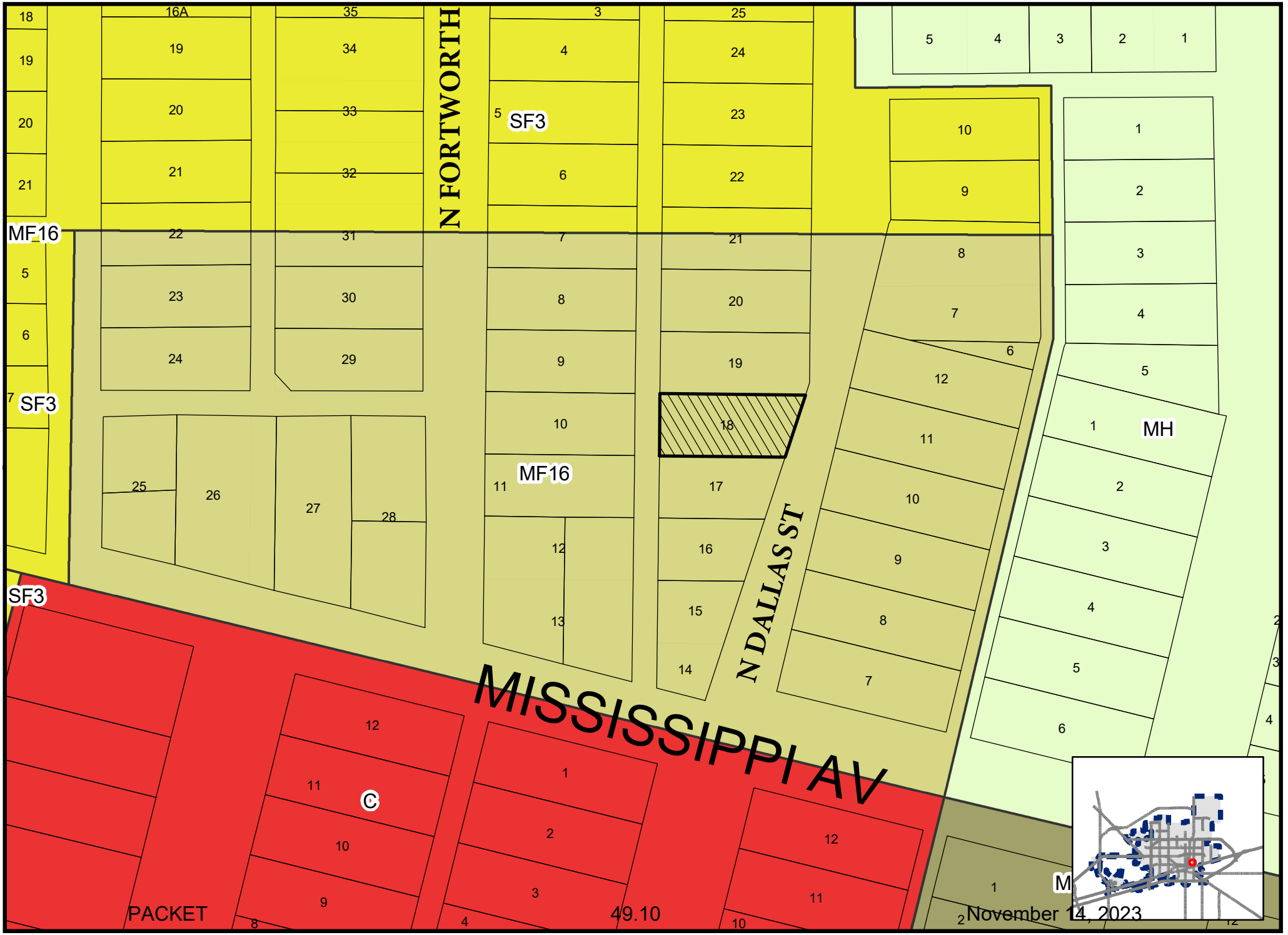
Generally located west of North Dallas Street approximately 200-feet north of Mississippi Avenue (Council District 2)

**LEGEND**

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




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THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND IS NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.




*Map By DH, 10/12/2023*

**Z-23-0347**

**Scale: 1" = 1,158'**

# ZONING MAP

© THE CITY OF MIDLAND - 2021: THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT, NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.









# City Council Meeting

**Item Number:** 50

**Meeting Date:** November 14, 2023

**To:** City Council / City Manager

**From:** Andrew Meyers, Planner

**Subject:** **RESOLUTION AUTHORIZING THE TEMPORARY USE OF LAND FOR A BARBECUE COOK-OFF AND MUSIC FESTIVAL ON LOT 1A, BLOCK 54, LOT 1A, BLOCK 55, A 0.86-ACRE PORTION OF NORTH COLORADO STREET RIGHT-OF-WAY LOCATED ADJACENT TO BLOCK 55, A 1.26-ACRE PORTION OF WEST TEXAS AVENUE RIGHT-OF-WAY LOCATED ADJACENT TO BLOCKS 54 AND 55, AND A 1.26-ACRE PORTION OF WEST WALL STREET RIGHT-OF-WAY LOCATED ADJACENT TO BLOCKS 54 AND 55, ALL OUT OF ORIGINAL TOWN ADDITION, SECTION 14, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED NORTHWEST OF THE INTERSECTION OF NORTH COLORADO STREET AND WEST WALL STREET) SUBJECT TO CERTAIN SPECIAL CONDITIONS AND RESTRICTIONS (DISTRICT 2) (DEVELOPMENT SERVICES)**

---

**Purpose:**

Consider a resolution by Russell Johnson for approval of a Temporary Land Use Permit for a Music Festival and Bar-B-Que Cook Off.

**Recommended City Council Action:**

Approve

**Fiscal Impact:**

No City funds are required to process this request.

**Discussion:**

The applicant is requesting a Temporary Land Use Permit for a music festival and car show at Centennial Park. They a proposing a temporary closure on Texas Avenue, Main Street, Colorado

Street, and Wall Street. The event will have live music, food vendors, and a variety of cars on displayed on the streets. The park will be surrounded by a temporary fence to contain all event related activities. Sixty (60) portable restrooms will be on site as well as twenty (20) peace officers. Alcohol will be served during the event.

The event will take place on:

**From 6:00 a.m. to 12:00 p.m. on April 5th, 2023 (Set Up)**
**12:00 p.m. to 10:00 p.m. April 5th, 2023**
**8:00 a.m. to 10:00 p.m. on April 6th, 2023**
**8:00 a.m. to 3:00 p.m. on April 7th, 2023 (Tear Down)**

This request has been circulated to all pertinent City departments for review. Below are the department's comments:

**Engineering: (Approved with Conditions)**

Comply with Temporary Traffic Control Procedure Update, dated March 24, 2017 and found on-line at: http://www.midlandtexas.gov/DocumentCenter/View/3225. Otherwise, no objection. [For Applicant's Information Only.]

**Transportation: (Approved with Conditions)**

No objections to the event. A Temporary Traffic Control Plan must be submitted by a qualified barricade company and approved by Engineering Services prior to the event or activity. The event organizer shall be responsible for coordinating with businesses or property owners whose access will be impacted.

**Fire: (Approved with Conditions)**

This event requires a site inspection by the fire department. Tent structure used over cooking appliances must meet all requirements of IFC 2015 ed. and NFPA 701 fire retardant compliance Food concessions are required to meet IFC 2015 ed. and local ordinances Arts and crafts vendors may not use open flame devices without special inspection for each site. Fire extinguishers must be available at each vendor (2A-10BC min size) Immediate access to fire department connections shall be maintained at all times and without obstructions by fixed or moveable objects. Site Inspection is required before the official start of the event. (Call 432-685-7333 to schedule)

**Animal Services: (Approved)**

No comments.

**Building Code: (Approved)**

No objections. All canopies, tents, and stages must be erected according to manufacturer's instruction and anchored down or tied down in a manner that prevents damage to other

properties and helps to prevent a safety risk to other people in the event of adverse weather. All sanitary facilities must be maintained in a reasonable manner and easily located by the public.

**Planning: (Approved)**

This temporary land use permit for the Music Festival and Car Show follows Goal #2 of Chapter 7 of the Tall City Tomorrow Comprehensive Plan, which is to "create a cultural core in Midland that is a living, working, and entertainment destination," as it provides an event that the residents of Midland can attend.

**A.** Staff recommends approval of this temporary land use permit, subject to conditions A through N.
**That the day and hours of the event shall be limited to:**
**Friday, April 5th, 2024 6:00 a.m. to 10:00 p.m.**
**Saturday, April 6th, 2024 8:00 a.m. to 10:00 p.m.**
**Sunday, April 7th, 2024 8:00 a.m. to 3:00 p.m.**

**B. That the operation of the Event shall conform to the site plan, which is attached hereto as "Exhibit A" and incorporated herein for all purposes.**

**C. That the set up for the event may commence at 12:00 p.m. on April 5, 2024, and the event shall be completely torn down by 3:00 p.m. on April 7, 2024.**

**D. That the applicant shall be responsible for coordinating with the Midland Downtown Park Conservancy (the "Conservancy") to ensure that the Conservancy's rules and conditions regarding the use of Centennial Park for the Event are satisfied.**

**E. That the applicant shall provide a minimum of 60 restrooms that shall be made available for use during all operating hours of the Event.**

**F. That a total of 20 peace officers shall be provided for the Event.**

**G. That a total of sixty (60) portable restrooms shall be provided for the Event**

**H. That the following uses are specifically permitted:**

1. **The sale of alcoholic beverages for on-premises consumption shall be allowed during all operating hours of the Event in compliance with state and local laws.**

2. **That live music shall be allowed during all operating hours of the Event.**

I. **That all tents, canopies, and booths must be erected according to manufacturer's installation instructions including tie downs that will resist our local estimated wind load.**

J. **That a temporary traffic control plan must be submitted by a qualified barricade company and approved by Engineering Services prior to the event or activity.**

K. **That the event shall comply with all requirements of the Fire Code; the applicant shall call for an inspection by the Fire Marshal prior to commencing the event.**

L. **That the Code Administration Division and the Planning Division shall be notified no later than 48 hours preceding the event.**

M. **That the applicant shall obtain approval from the Solid Waste Department for a refuse collection and clean-up plan prior to the Event.**

N. **That the applicant shall be responsible for ensuring that the conditions of this permit are observed.**

**Letters of Objection:**

As of November 8, 2023, Staff has not received any letters of objection.

**Attachments:**

Application
Site Plan (Exhibit A)
Maps

Morris Williams Jr.

City Manager's Office

**RESOLUTION NO. _____**

**RESOLUTION AUTHORIZING THE TEMPORARY USE OF LAND FOR A BARBECUE COOK-OFF AND MUSIC FESTIVAL ON LOT 1A, BLOCK 54, LOT 1A, BLOCK 55, A 0.86-ACRE PORTION OF NORTH COLORADO STREET RIGHT-OF-WAY LOCATED ADJACENT TO BLOCK 55, A 1.26-ACRE PORTION OF WEST TEXAS AVENUE RIGHT-OF-WAY LOCATED ADJACENT TO BLOCKS 54 AND 55, AND A 1.26-ACRE PORTION OF WEST WALL STREET RIGHT-OF-WAY LOCATED ADJACENT TO BLOCKS 54 AND 55, ALL OUT OF ORIGINAL TOWN ADDITION, SECTION 14, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED NORTHWEST OF THE INTERSECTION OF NORTH COLORADO STREET AND WEST WALL STREET) SUBJECT TO CERTAIN SPECIAL CONDITIONS AND RESTRICTIONS**

**WHEREAS**, pursuant to Section 11-1-4.05 of the City Code of Midland, Texas, Russell Johnson (the "Applicant") has applied for authorization to temporarily use Lot 1A, Block 54, Lot 1A, Block 55, a 0.86-acre portion of North Colorado Street right-of-way located adjacent to Block 55, a 1.26-acre portion of West Texas Avenue right-of-way located adjacent to Blocks 54 and 55, and a 1.26-acre portion of West Wall Street right-of-way located adjacent to Blocks 54 and 55, all out of Original Town Addition, Section 14, City and County of Midland, Texas (the "Property") for a barbecue cook-off and music festival (the "Event"); and

**WHEREAS**, the Council finds and determines that such temporary use shall be allowed;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:**

**SECTION ONE.** That the Applicant is hereby authorized by the City Council to temporarily use the Property for the Event subject to the following conditions and restrictions:

A. That the days and hours of operation of the Event shall be limited to the following:

April 5, 2024, from 12:00 p.m. (noon) to 10:00 p.m.; and

April 6, 2024, from 8:00 a.m. to 10:00 p.m.

B. That the days and hours of set-up and tear-down of the Event shall be limited to the following:

April 5, 2024, from 6:00 a.m. to 12:00 p.m. (noon); and
April 7, 2024, from 8:00 a.m. to 3:00 p.m.

C. That the operation of the Event shall conform to the site plan, which is attached hereto as Exhibit "A" and incorporated herein for all purposes.

D. That the Applicant shall provide a minimum of 60 portable restrooms that shall be made available for use during all operating hours of the Event.

E. That the Applicant shall provide a minimum of twenty (20) peace officers during all operating hours of the Event.

F. That the following uses are specifically permitted:

1. Live music shall be allowed during all operating hours of the Event.

2. The sale and on-premises consumption of alcoholic beverages shall be allowed during all operating hours of the Event in compliance with state and local laws.

G. That prior to operation of the Event, the Applicant shall obtain approval from the Engineering Services Department of a traffic control plan submitted by a qualified barricade company for the temporary closures of the portions of rights-of-way on which the Event will be operated. The Event shall be operated in accordance with said traffic control plan. The Applicant shall coordinate with businesses and property owners whose access may be impacted by the Event to ensure that access is available for such businesses and property owners during the operation of the Event.

H. That the Event shall be operated in compliance with all requirements of the Fire Code. The Applicant shall call for an inspection by the Fire Marshal prior to commencing operation of the Event.

I. That the Applicant shall obtain approval from the Solid Waste Department for a refuse collection and clean-up plan prior to operation of the Event.

J. That the Code Administration Division and the Planning Division shall be notified no later than 48 hours preceding operation of the Event.

K. That the Applicant shall be responsible for ensuring that the conditions herein are observed and satisfied.

**SECTION TWO.** That the City Council reserves at all times the full right and power to revoke said temporary use for violation of any of its terms or any misrepresentations contained in the application, after a hearing of which the holder of said temporary use has

been given at least one (1) day notice.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2023, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Lori Merritt Blong, Mayor

ATTEST:

_____
Marcia Bentley-German, City Secretary

RECOMMENDED AND APPROVED:

_____
Tommy Gonzalez, City Manager

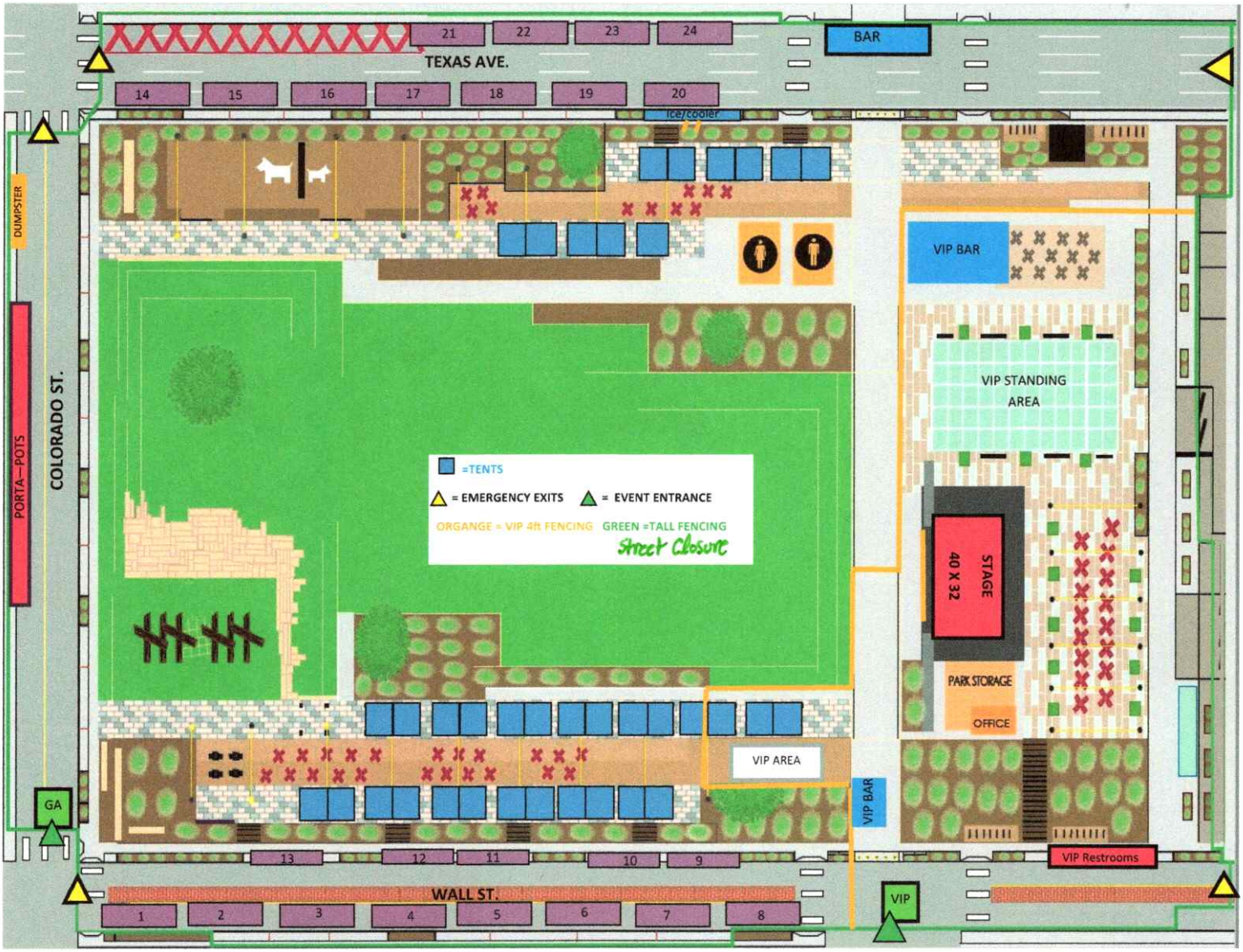
APPROVED AS TO CONTENT
AND COMPLETENESS:

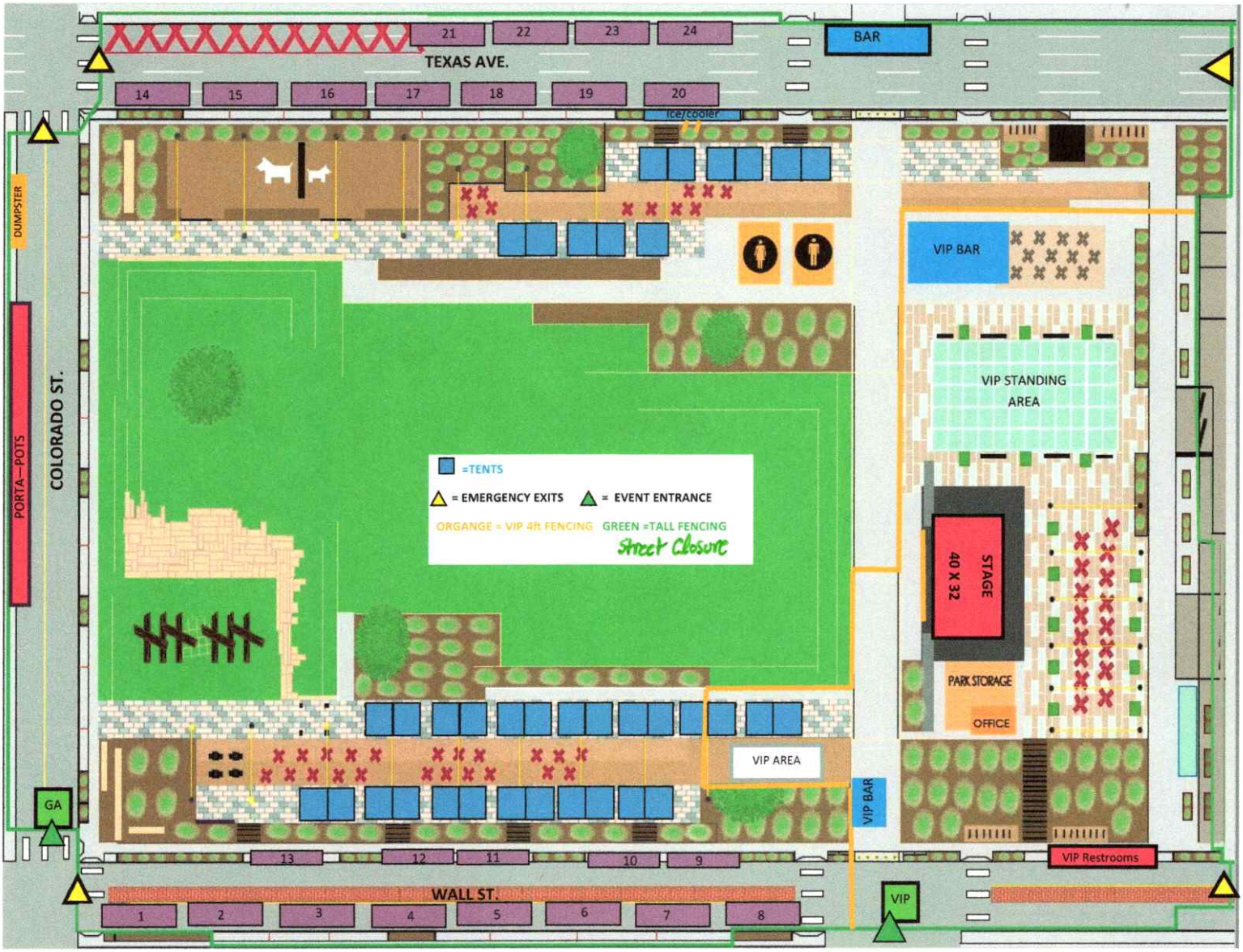
_____
Cristina Burns, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

# EXHIBIT "A"


TEXAS AVE.
21
22
23
24
BAR
14
15
16
17
18
19
20
Ice/cooler
DUMPSTER
PORTA—POTS
COLORADO ST.
VIP BAR
VIP STANDING AREA
=TENTS
= EMERGENCY EXITS
= EVENT ENTRANCE
ORGANGE = VIP 4ft FENCING
GREEN =TALL FENCING
Street Closure
STAGE 40 X 32
PARK STORAGE
OFFICE
VIP AREA
VIP BAR
GA
13
12
11
10
9
VIP Restrooms
WALL ST.
1
2
3
4
5
6
7
8
VIP


TEXAS AVE.
21
22
23
24
BAR
14
15
16
17
18
19
20
Ice/cooler
DUMPSTER
PORTA—POTS
COLORADO ST.
VIP BAR
VIP STANDING AREA
=TENTS
= EMERGENCY EXITS
= EVENT ENTRANCE
ORGANGE = VIP 4ft FENCING
GREEN =TALL FENCING
Street Closure
STAGE 40 X 32
PARK STORAGE
OFFICE
VIP AREA
VIP BAR
GA
13
12
11
10
9
VIP Restrooms
WALL ST.
1
2
3
4
5
6
7
8
VIP

MIDLAND
Planning Division

# Temporary Land Use Application

Project Number: _____

Case Number: _____

**Event Name:** BASIN BURNOUT 2024

| | | | |
|---|---|---|---|
| **Applicant** *(if acting as Agent, see affidavit on page 2)*<br>Printed Name: RUSSELL JOHNSON | | Phone (432) 257-9303<br>Email russdj1@gmail.com | |
| Address<br>2807 W. DENGAR AVE | City<br>MIDLAND | State<br>TX | Zip<br>79705 |

| | | | |
|---|---|---|---|
| **Property Owner** MIDLAND DOWNTOWN<br>Printed Name: PARK CONSERVANCY | | Phone (432) 687-8200<br>Email | |
| Address<br>200 W. WALL ST | City<br>MIDLAND | State<br>TX | Zip<br>79701 |

| | | | |
|---|---|---|---|
| **Representative** *(if different from Applicant or Property Owner)*<br>Firm: _____<br>Printed Name: | | Phone ( )<br>Email | |
| Address | City | State | Zip |

**Street Address:**

**Legal Description**
Lot: Block: Subdivision:

**Current Zoning:**

**Type of Temporary Use Requested:**

**Description of Event:** ALL DAY BBQ COOK-OFF AND MUSIC FESTIVAL

**Duration of Temporary Use:** 6:00AM 04-05-24 — 3:00PM 04-07-24
*If event lasts for more than (1) day and is located within any residential district or is located within 1,000 feet of any residential district, then a public hearing is required.*

**Proposed Days and Hours:** 6:00AM ON 04-05-24 — 3:00PM 04-07-24
Set-up 8:00AM - 12:00PM 04-05 24 Tear-Down 8:00AM - 12:00PM 04-07 24

**Will alcoholic beverages be sold?** ☒ Yes ☐ No
*If yes, you must comply with all Texas Alcoholic Beverage Commission (TABC) regulations for the event.*

**Are you requesting the temporary closure of any streets?** ☒ Yes ☐ No
*If yes, you must:*

A. Complete the "**Special Event and Street Closure Application**", available from the Planning Division (4th Floor, City Hall), as well as submit a "**Traffic Control Plan**" to the Transportation Division (5th Floor, City Hall).
B. Provide the City with a **general liability insurance certificate**, naming the **City** as an **Additional Insured**, in the amount of one million dollars ($1,000,000) for the term of the closure.

| | | | |
|---|---|---|---|
| **Number of Peace Officers Provided:** 20<br>*Contact the Midland Police Department to schedule off-duty police officers.* | | | |
| **Type of Music** (*carnival, live, etc.*):<br>TEXAS COUNTRY MUSIC | | | |
| **Showmobile** (*portable stage*) **Requested:** ☐ Yes ☒ No | | Days & Hours: | |
| **Number of Restroom Fixtures Provided:** | *Men* | **Toilets/Urinals:** 20 | **Bathroom Sinks:** 5 |
| | *Women* | **Toilets:** 20 | **Bathroom Sinks:** 5 |
| | *Unisex* | **Toilets:** 20 | **Bathroom Sinks:** 5 |

**Submittal and Fees**

**Items to be submitted with this application form:**

- Application Fee – Payable to the 'City of Midland'
- Damage Deposit
- Clean-Up Deposit
- 1 FOLDED Copy of Site Plan*
- Digital Copies of Site Plan (PDF/JPEG)

**Should show existing buildings, parking, access arrangements, surrounding streets, activity areas, areas of alcoholic beverage sales, proposed street closures, etc.*

| **Signatures** | |
|---|---|
| Applicant (signature): | Date: 09-25-2023 |
| Applicant (printed): RUSSELL JOHNSON | |
| Property Owner (signature): | Date: 10-11-2023 |
| Property Owner (printed): STEPHANIE MARTIN | |
| Representative (signature): | Date: |
| Representative (printed) : | |

*The Temporary Land Use Permit shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.*

*All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.*

anna @ centennialparkmidland.org

**Application will not be considered for scheduling until reviewed by a planner.**

If an agent is authorized by the property owner to file and execute the application on behalf of the property owner, the agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared Russell Johnson who, being by me duly sworn, upon oath says: That (s)he is authorized by Midland Downtown Park Conservancy, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

Authorized Agent (*signature*)

Subscribed and sworn to before me, this 26th day of September, 20 23, to certify which witness my hand and seal of office.

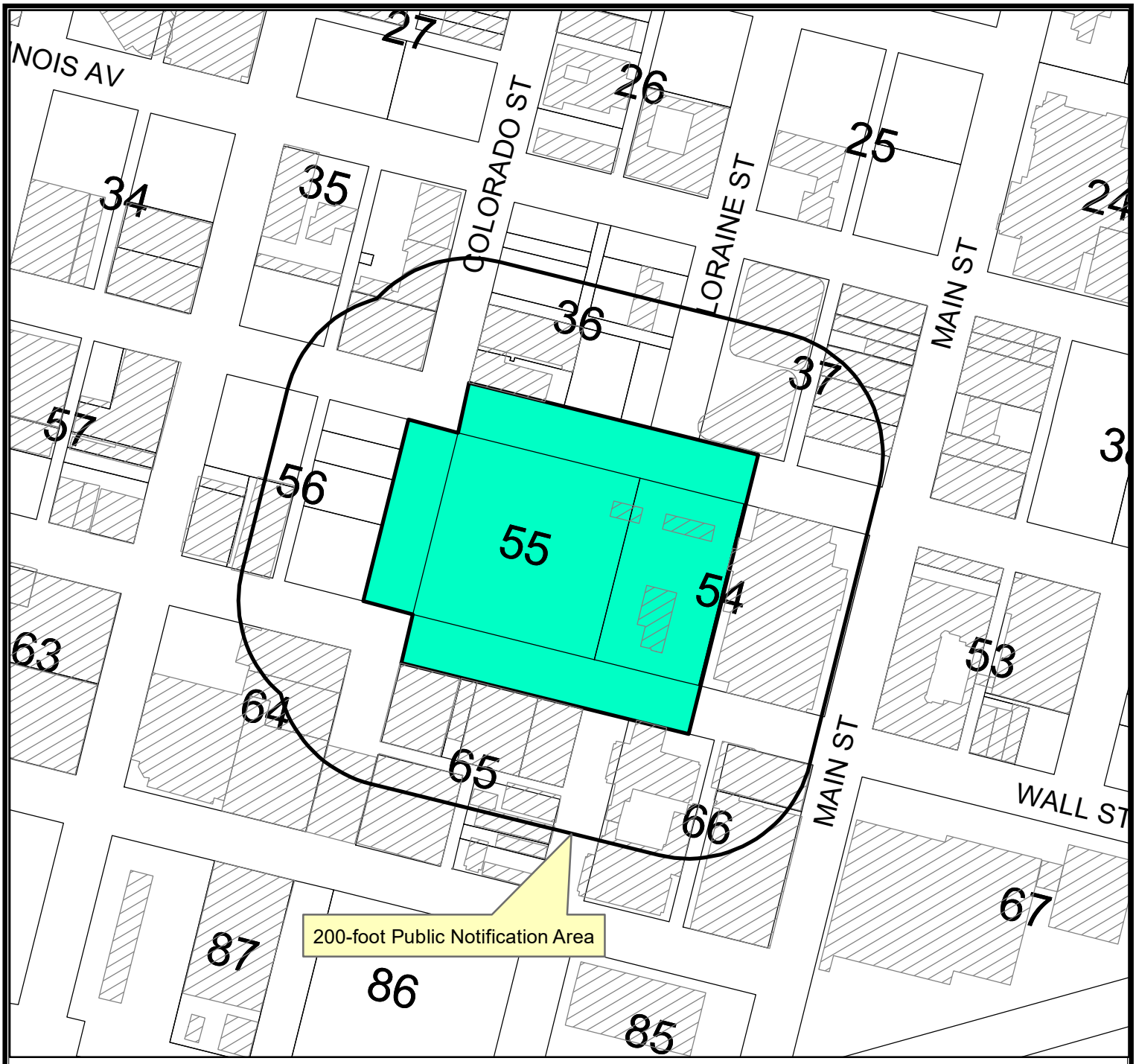
BRITTANY JOHNSON
Notary Public, State of Texas
Comm. Expires 05-24-2027
Notary ID 134376842

NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

**FOR OFFICE USE ONLY**

| | |
|---|---|
| ☑ Property Owner Authorization | ☐ Liability Insurance (Street Closure) |
| ☑ Dimensioned Site Plan | ☑ Traffic Control Plan (Street Closure) |
| ☑ Plans in Digital Format (PDF/JPEG) | ☑ Clean-Up Deposit |
| ☑ Application Fee | Check # 1334 |
| Check # 1336 | ☑ Damage Deposit |
| ☐ Administrative Approval | Check # 1334 |
| Received By: | Date: |

**Application will not be considered for scheduling until reviewed by a planner.**




# LOCATION MAP

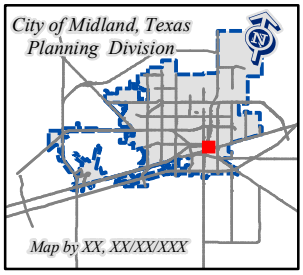
**TLU-23-0156** **Scale: 1" = 2750'**

A 0.86-acre portion of North Colorado Street right-of-way located adjacent to Lot 1A, Block 55; a 1.26-acres portion of West Texas Avenue right-of-way located adjacent to Blocks 54 and 55; a 1.26-acres portion of West Wall Street right-of-way located adjacent to Blocks 54 and 55, Lot 1A, Block 54, and Lot 1A, Block 55, all out of Original Town Addition, Section 14, City and County of Midland Texas.

Generally located northwest of the intersection of North Colorado Street and West Wall Street. (Council District 2)

**LEGEND**

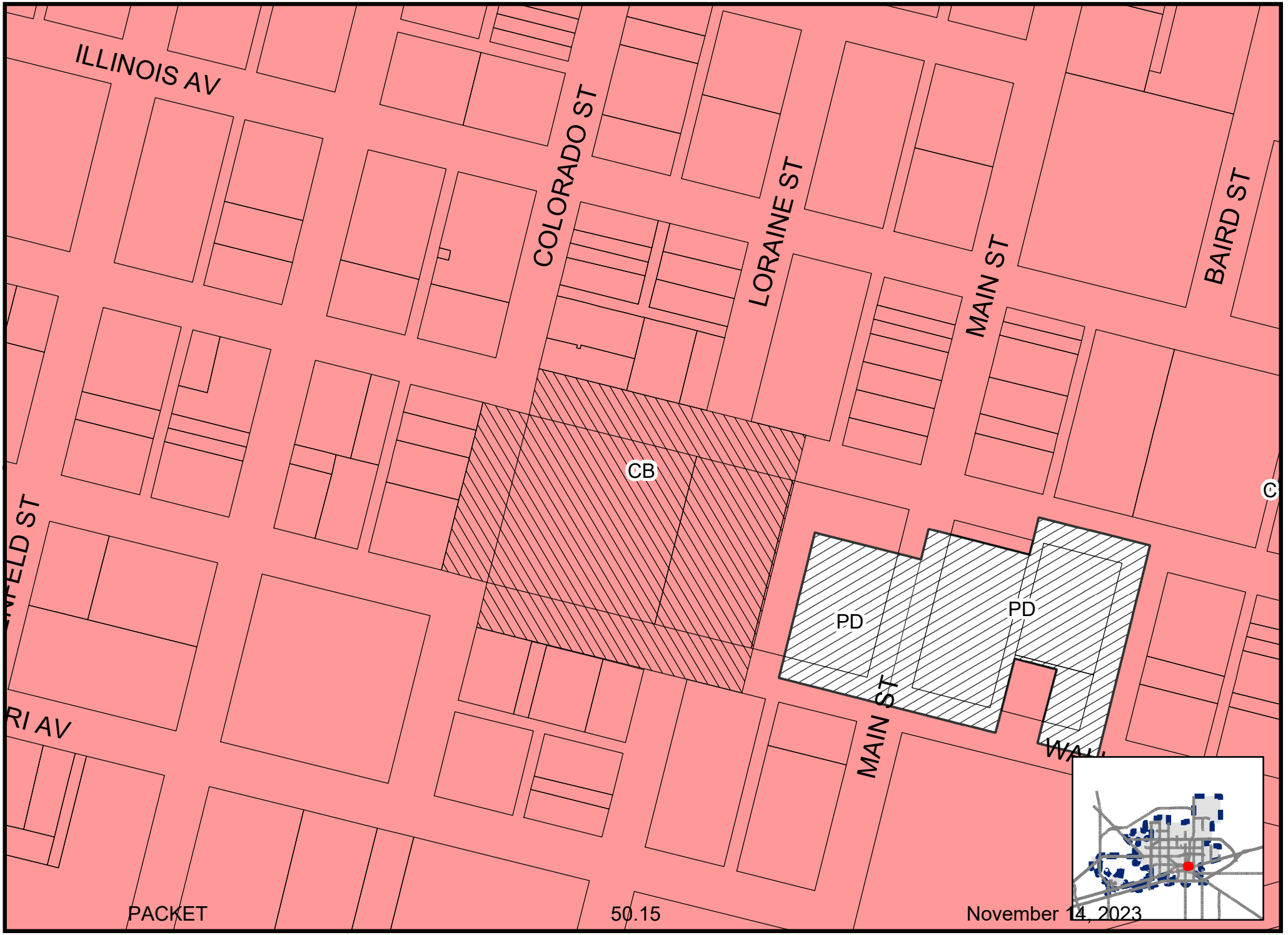
- CITY LIMITS
- PARCEL
- PRIVATE BLDGS




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THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND NOR IS IT DESIGNED TO BE USED AS THE ONLY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.

THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.




*Map By ES, 7/8/2021*

**TLU-23-0156**

**Scale: 1" = 2500'**

# ZONING MAP

© THE CITY OF MIDLAND - 2021: THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT, NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN. THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.




W Wall St


P/S


W Wall St

MIDLAND
City Secretary Office

**Date:** November 14, 2023

**To:** The Honorable Mayor Blong and Council

**From:** Vanessa Magallanes, Chief Deputy City Secretary

**Subject:** Animal Control Advisory Commission & Midland Spaceport Development Corporation Applications

Dear Council, included within this packet are the applications received for the (3) vacancies on the Midland Spaceport Development Corporation. Also, there is a letter from Judge Terry Johnson resigning from the Animal Control Advisory Commission and the application from Midland County Commissioner Diane Anderson to replace Judge Johnson.

**Animal Control Advisory Committee**

1 – Vacancy (Johnson)

**Midland Spaceport Development Corporation**

3 – Vacancies (Blong, Poole, Stretcher Burkes)

# BOARDS AND COMMISSIONS OF THE CITY OF MIDLAND
## November 14, 2023

### AIRPORT PLANNING AND DEVELOPMENT BOARD
(Advisory)
(Membership-10; Terms - 3 Years expiring 3-3-4.)

| | Appt Date | Term Expires | Eligibility Expires |
|---|---|---|---|
| Dave Joyner | 10/21 | Sept 30 2024 | Sept 30 2027 |
| Justin Kuethe | 09/19 | Sept 30 2025 | Sept 30 2025 |
| Nick McClure | 09/19 | Sept 30 2025 | Sept 30 2025 |
| James Linderman | 04/22 | Sept 30 2025 | Sept 30 2028 |
| Frank Kisner | 09/22 | Sept 30 2025 | Sept 30 2028 |
| Brandon Patterson | 09/22 | Sept 30 2025 | Sept 30 2028 |
| Gena Linebarger | 09/20 | Sept 30 2026 | Sept 30 2026 |
| Benjamin Fietz | 09/20 | Sept 30 2026 | Sept 30 2026 |
| John Echols | 09/23 | Sept 30 2026 | Sept 30 2029 |
| Samuel Jolliffe V | 09/23 | Sept 30 2026 | Sept 30 2029 |

Justine Ruff (Liaison)
Robin Poole (Council Liaison)

Ex-Officio members are Earl Erdman and Harry Spannaus, the City Manager and the City Attorney. The Secretary is the Director of Aviation.

**Eligibility Requirements**: Resident of Midland County

### ANIMAL CONTROL ADVISORY COMMISSION
(Advisory)
(Membership - 7; Terms - 4 Years)

| | Appt Date | Term Expires | Eligibility Expires |
|---|---|---|---|
| Melissa Griffin-Hobson (daily operations) | 08/23 | Sept 30 2025 | Does Not Expire |
| Dr. J. Annette Jensen (Veterinarian) | 04/20 | Sept 30 2024 | Does Not Expire |
| Tasha Sport | 04/20 | Sept 30 2024 | Sept 30 2028 |
| Sharla Hotchkiss | 04/20 | Sept 30 2024 | Sept 30 2028 |
| VACANT (Johnson) (County) | 05/23 | Sept 30 2027 | Does Not Expire |
| Alyson Dial | 09/18 | Sept 30 2026 | Sept 30 2026 |
| Beth Meeks | 09/22 | Sept 30 2026 | Sept 30 2030 |

Melissa Griffin-Hobson (Staff Liaison)
Dan Corrales (Council Liaison)

**Eligibility Requirements**: 1 License Veterinarian, 1 Animal Shelter Employee, 1 Animal Welfare Organization Representative, 1 County or Municipal Official, 3 Citizens

## BARBARA AND GEORGE H.W. BUSH CONVENTION CENTER ADVISORY BOARD

(Advisory)

(Membership-7; City Appoints 4 Seats; Terms – 3 Years - Staggered)

| | Appt Date | Term Expires | Eligibility Expires |
|---|---|---|---|
| Kevin Nelson | 09/23 | Sept 30 2024 | Sept 30 2027 |
| Randall Milloy | 09/23 | Sept 30 2025 | Sept 30 2028 |
| Tucker Schneemann | 09/23 | Sept 30 2025 | Sept 30 2028 |
| Dillon Custer | 09/23 | Sept 30 2026 | Sept 30 2029 |

Robin Poole (Council Liaison)

Non-voting Ex-Officio member is the City Governance Officer/City Secretary.

## BUILDING AND FIRE CODE REVIEW COMMITTEE/CONSTRUCTION BOARD OF ADJUSTMENTS & APPEALS

(Decision Making)

(Membership – 9; Terms – 6 Years)

Shall consist of two architects, a fire protection contractor or specialist, a general contractor, an electrical contractor, a homebuilder, a plumbing and mechanical contractor, a structural engineer, a City Council Liaison

| | Appt Date | Term Expires | Eligibility Expires |
|---|---|---|---|
| Ryan Almand (Electrical Contractor) | 12/18 | Sept 30 2024 | Sept 30 2030 |
| Jay Bradford (Architect) | 12/18 | Sept 30 2024 | Sept 30 2030 |
| T.J. McClure (Architect) | 12/18 | Sept 30 2024 | Sept 30 2030 |
| Laurence Oeth (Structural Engineer) | 12/18 | Sept 30 2024 | Sept 30 2030 |
| Gary Glasscock (General Contractor) | 12/18 | Sept 30 2024 | Sept 30 2030 |
| Robert Anderson (Homebuilder) | 12/18 | Sept 30 2024 | Sept 30 2030 |
| Dean Kelly (Plumbing & Mechanical Contractor) | 04/22 | Sept 30 2028 | Sept 30 2034 |
| Kenneth Whiting (Fire Protection) | 04/22 | Sept 30 2028 | Sept 30 2034 |
| Jeff Pinkstaff (Liaison) | 12/18 | Sept 30 2024 | Sept 30 2030 |
| Dan Corrales (Council Liaison) | | | |

**Eligibility Requirements**: Members shall reside within the City.

## CAPITAL IMPROVEMENT ADVISORY COMMITTEE

(Advisory)
(Membership – 7)
A minimum of 40% must be representative of real estate, development, or building industries who are not employees or officials of a political subdivision or governmental entity.)

| | Appt Date |
|---|---|
| Carl Craigo | 10/19 |
| Walter Pate | 06/18 |
| Mark Payne | 06/18 |
| Brian Sales | 06/18 |
| Kerry Koehler | 09/23 |
| Gabriel McClelland (Staff Liaison) | 09/23 |
| Bill Scott | 09/22 |
| Robin Poole (Council Liaison) | |

## CITIZENS DEVELOPMENT AND HOTEL/MOTEL ADVISORY BOARD

(Advisory)
(Membership - 7; Terms - 2 Years Staggered)

| | Appt Date | Term Expires | Eligibility Expires |
|---|---|---|---|
| Brandon Ofield | 09/20 | Sept 30 2024 | Sept 30 2024 |
| Ankur Bhakta | 09/22 | Sept 30 2024 | Sept 30 2026 |
| Cole Harrison | 09/22 | Sept 30 2024 | Sept 30 2026 |
| Reggie Lawrence | 09/22 | Sept 30 2024 | Sept 30 2026 |
| Clint Williamson | 04/21* | Sept 30 2025 | Sept 30 2025 |
| Vicky Hailey | 09/21 | Sept 30 2025 | Sept 30 2025 |
| Heather Bredimus | 09/23 | Sept 30 2025 | Sept 30 2027 |

Marcia Bentley-German (Staff Liaison)
Robin Poole (Council Liaison)
John Norman (Council Liaison)

**Eligibility Requirements**: Members shall be thoroughly familiar with Chapter 351, “Municipal Hotel Occupancy Taxes”, 1 Member Representative of Hotel/Motel Association.

## MIDLAND CENTRAL APPRAISAL DISTRICT BOARD OF DIRECTORS

(Separate Legal Entity)
Five Directors, Elected by Local Taxing Entities.
City Nominates/Cast Vote for one Director
(Terms - 2 Years)

| | Appt Date | Term Expires |
|---|---|---|
| Robert McNaughton | 11/15 | Dec 31 2024 |

## MIDLAND DEVELOPMENT CORPORATION

(Decision Making/Separate Legal Entity)
(Membership - 7; Terms -3 Years - Staggered)

| | Appt Date | Term Expires | Eligibility Expires |
|---|---|---|---|
| Chase Gardaphe | 01/19 | Jan 14 2025 | Jan 14 2025 |
| Barry Simpson | 01/19 | Jan 14 2025 | Jan 14 2025 |
| Brad Bullock | 04/21* | Jan 14 2026 | Jan 14 2029 |
| P Lourcey Sams | 04/20* | Jan 14 2026 | Jan 14 2026 |
| Jill Pennington | 04/20* | Jan 14 2026 | Jan 14 2026 |
| Zachary Deck | 01/23 | Jan 14 2026 | Jan 14 2029 |
| Elvie Brown | 10/23* | Jan 14 2025 | Jan 14 2030 |

Vanessa Magallanes (Staff Liaison)
Amy Stretcher-Burkes (Council Liaison)
Lori Blong – Mayor (Council Liaison)

**Eligibility Requirements**: No director or employee shall be related to a current City Council member.

## MIDLAND DOWNTOWN PARK CONSERVANCY BOARD

(Separate Legal Entity)
(Membership - 7; City Appoints 3 Seats; Terms -3 Years - Staggered)
(Resolution of appointment is made each February and each appointment must be ratified by the Conservancy Board in March at their annual meeting)

| | Appt Date | Term Expires | Eligibility Expires |
|---|---|---|---|
| Barry Beal Jr. | 08/18 | Sep 30 2024 | Sep 30 2024 |
| Sharla Hotchkiss | 07/20* | Sep 30 2025 | Sep 30 2028 |
| Elvie Brown | 02/23 | Sep 30 2026 | Sep 30 2029 |

## MIDLAND HIGHER EDUCATION FACILITIES CORPORATION

(Membership - 7; Terms - 2 Years Staggered)

| | Appt Date | Term Expires | Eligibility Expires |
|---|---|---|---|
| **Steve Jones** | **09/08*** | **Jan 1 2010** | **Jan 1 2012** |
| **Cathy Oestmann** | **11/05*** | **Jan 1 2010** | **Jan 1 2010** |
| **Vacancy** | | **Jan 1 2007** | |
| **Vacancy** | | **Jan 1 2007** | |
| **Vacancy** | | **Jan 1 2007** | |
| **Vacancy** | | **Jan 1 2009** | |
| **Curt Kamradt** | **11/05*** | **Jan 1 2014** | **Jan 1 2014** |

Sharla Hotchkiss (Liaison)

## MIDLAND HOUSING AUTHORITY COMMISSION

(Separate Legal Entity)
(Membership - 5; Terms - 2 Years expiring 3 even & 2 odd.)
**Appointments Made by Mayor (LGC 392.031)**

| | Appt Date | Term Expires |
|---|---|---|
| Wes Gotcher | 09/20 | Oct 2024 |
| Latoya Mayberry | 06/21 | Oct 2025 |
| Cheryl Wadley (Resident Commissioner) | 11/19 | Oct 2025 |
| Michelle Evans | 10/23 | Oct 2025 |
| Neville Peyton | 10/23 | Oct 2025 |

Isaac Garnett (Staff Liaison)

**Eligibility Requirements**: No member may be an officer or employee of the City of Midland.

## MIDLAND-ODESSA URBAN TRANSIT DISTRICT BOARD

(Decision Making/Separate Legal Entity)
(Membership – 12 with 6 appointed by Midland; Terms - 2 Years Staggered; Can serve 3 terms)

| | Appt Date | Term Expires | Eligibility Expires |
|---|---|---|---|
| Don “Woody” Woodward | 09/22 | Sept 30 2024 | Sept 30 2028 |
| Dan Corrales | 09/22 | Sept 30 2024 | Sept 30 2028 |
| Robert Crites | 10/22 | Sept 30 2024 | Sept 30 2028 |
| Joseph Sanchez | 12/19* | Sept 30 2027 | Sept 30 2027 |
| Daniel Norwood | 04/21* | Sept 30 2029 | Sept 30 2029 |
| Randall Milloy | 10/23 | Sept 30 2025 | Sept 30 2027 |

Taha Sakrani (Staff Liaison)

## MIDLAND SPACEPORT DEVELOPMENT CORPORATION

(Decision Making)
(Membership – 7 with 4 appointed by City of Midland & 3 by Midland County; 2 Year-Terms)

| | Appt Date | Term Expires |
|---|---|---|
| VACANT (Blong) (City) | 04/23 | Sept 30 2025 |
| VACANT (Poole) (City) | 04/23 | Sept 30 2025 |
| VACANT (Stretcher Burkes) (City) | 04/23 | Sept 30 2025 |
| Frank Kisner (City) | 04/23 | Sept 30 2025 |
| Judge Terry Johnson (County) | 04/23 | Sept 30 2025 |
| Luis Sanchez (County) | 04/23 | Sept 30 2025 |
| Ed Anderson (County) | 04/23 | Sept 30 2025 |

Justine Rau (Staff Liaison)

## OIL AND GAS ADVISORY COMMITTEE

(Advisory)
(Membership – 5; Terms – 3 Years expiring 2-2-1)
2 real property developer, real estate sales, or developer; 3 Lic. petroleum engineer, engineer w/ bachelor, or geologist

| | Appt Date | Term Expires | Eligibility Expires |
|---|---|---|---|
| Rhett Bullock (Petroleum Eng.) | 09/21 | Sept 30 2024 | Sept 30 2027 |
| Cameron Willmann (Real Estate) | 10/21* | Sept 30 2024 | Sept 30 2027 |
| Scott Bowden (Real Estate) | 10/19 | Sept 30 2025 | Sept 30 2025 |
| Ross Klabon (Petroleum Eng.) | 10/19 | Sept 30 2025 | Sept 30 2025 |
| Layton Hargesheimer | 10/23 | Sept 30 2026 | Sept 30 2029 |

Ron Jenkins (Staff Liaison)

**Eligibility Requirements**: 3 Petroleum Engineers or Geologists and 2 with Property Development or Real Estate Experience.

## PARKS AND RECREATION COMMISSION

(Advisory)
(Membership - 9; Terms - 3 Years expiring 3-3-3.)

| | Appt Date | Term Expires | Eligibility Expires |
|---|---|---|---|
| Shirley Howard | 02/16* | Sept 30 2024 | Sept 30 2024 |
| Laura Smith | 10/19 | Sept 30 2025 | Sept 30 2025 |
| Amber Voithorer | 09/22 | Sept 30 2025 | Sept 30 2028 |
| Rachel Overman | 09/22 | Sept 30 2025 | Sept 30 2028 |
| Sarah Judge | 09/22 | Sept 30 2025 | Sept 30 2028 |
| Lynn Rogers | 09/22 | Sept 30 2025 | Sept 30 2028 |
| Susannah Prucka | 04/20* | Sept 30 2026 | Sept 30 2026 |
| Dal Watson | 09/20 | Sept 30 2026 | Sept 30 2026 |
| Andra Jones | 09/23 | Sept 30 2026 | Sept 30 2029 |

Laurie Williams (Staff Liaison)
John Norman (Council Liaison)

**Eligibility Requirements**: Resident Citizen, Taxpayer and Qualified Voter.

## PERMIAN BASIN COMMUNITY CENTER FOR MH/MR (PermiaCare)

(Separate Legal Entity)
(Membership 9 - 2 (City); Terms - 2 Years)

| | Appt Date | Term Expires |
|---|---|---|
| Derek Cook (City) | 06/21 | June 2025 |
| Mickey Cargile (City) | 09/23 | June 2025 |

## PERSONNEL BOARD OF APPEALS

(Decision Making)
(Membership - 3; No designated terms. Mayor appoints.)

| | Appt. Date |
|---|---|
| Scott Dufford | 01/14 |
| Hugh A. “Andy” Shaffer | 09/05 |
| Lori Blong | 01/23 |

Mark Widman (Staff Liaison)

**Eligibility Requirements**: Board consists of two City Council members and one other member who is not a City employee.

## PLANNING AND ZONING COMMISSION

(Decision Making)
(Membership - 7; Terms - 3 Years)

| | Appt Date | Term Expires | Eligibility Expires |
|---|---|---|---|
| Adrian Carrasco | 09/21 | Sept 30 2024 | Sept 30 2027 |
| Emily Holeva | 09/22 | Sept 30 2025 | Sept 30 2028 |
| Abraham Bejil | 09/22 | Sept 30 2025 | Sept 30 2028 |
| Steven Villela | 05/23* | Sept 30 2026 | Sept 30 2029 |
| Lucy Sisniega | 09/20 | Sept 30 2026 | Sept 30 2026 |
| John Burkholder | 10/23 | Sept 30 2026 | Sept 30 2029 |
| Brennan Berry | 10/23 | Sept 30 2026 | Sept 30 2029 |
| **ALTERNATES:** | | | |
| Sallie Vega | 09/22 | Sept 30 2025 | Sept 30 2028 |
| Joshua Sparks | 10/23 | Sept 30 2026 | Sept 30 2029 |

Cristina Odenborg-Burns (Staff Liaison)

**Eligibility Requirements**: Resident citizen of City of Midland, owner of real property within the City Limits and qualified Voter.

## ZONING BOARD OF ADJUSTMENT
## AND
## AIRPORT ZONING BOARD OF ADJUSTMENT

(Decision Making)
(Membership - 5; Terms - 2 Years expiring 3 odd & 2 even.)

| | Appt Date | Term Expires | Eligibility Expires |
|---|---|---|---|
| Robert Gray | 01/21* | Sept 30 2023 | Sept 30 2027 |
| Reed Claybrook | 03/19* | Sept 30 2024 | Sept 30 2024 |
| James Gerety | 10/22 | Sept 30 2024 | Sept 30 2026 |
| Rachel Walker | 10/23 | Sept 30 2025 | Sept 30 2027 |
| Elizabeth Moore | 10/23 | Sept 30 2025 | Sept 30 2027 |

**ALTERNATES**: (not applicable to Airport Zoning)

| | |
|---|---|
| Ross Schumann | Sept 30 2025 |
| **VACANCY** | **Sept 30 2020** |
| **VACANCY** | **Sept 30 2020** |
| **VACANCY** | **Sept 30 2020** |

Jeff Pinkstaff (Staff Liaison)

****Updated: November 6, 2023****



* **Indicates appointment to an unexpired term.**

Terry Johnson
Midland County Judge

October 25, 2023

Mr. Charles Blumenauer
Managing Director Public Safety
City of Midland
1500 W. Wall
Midland, TX 79701

RE: Resignation from Animal Services Advisory Committee and Appointee

Dear Chief Blumenauer,

Please accept this letter as my official resignation from the Animal Services Advisory Committee effective immediately. I fully support this committee's cause and efforts, but I must resign due to other obligations. Commissioner Dianne Anderson has expressed great interest in taking my place on this committee as a county representative so please reach out to her via email or phone at danderson@mcounty.com or 432-688-4804. Again, thank you for the opportunity to serve on your committee and please let me know how I can help your efforts in the future.

Cordially,

Terry Johnson
Midland County Judge



500 North Loraine, Suite 1100 ♦ Midland, Texas 79701 ♦ (432) 688-4310 ♦ Fax (432) 688-4931

# APPLICATION FOR CITY OF MIDLAND BOARDS/COMMISSIONS/COMMITTEES

As an applicant for a City board, commission, or committee, please be advised that all information on this application is subject to the Texas Open Records Act and will be available to the public.

**PLEASE TYPE OR PRINT CLEARLY:**

**Date:** 11/6/2023

**Name:** Dianne Anderson

**Phone:** 4326844560 **(Home)**

6884804 **(Business)**

**Address:** 2521 Humble

Midland TX 79705

(City) (State) (Zip)

**Email:** danderson@mcounty.com

**I am** ☑ **I am not** ☐ **a U.S. Citizen**

**Please tell us about yourself:**

**Are you a graduate of Midland 101?** ☐ **yes** ☑ **no**

**I have lived in Midland** 45 **years.**

**Occupation:** County Commissioner

**Professional and/or Community Activities:**

**What is your personal vision for the City?**

**Please specify any time constraints you may have.**

**Please list below the Board(s) or Commission(s) on which you are interested in serving:**

**(You can find a complete and current list on the City's website at *www.midlandtexas.gov*)**

**(1) Name of Board/Commission:**

Animal Services Board

**Please tell us why you are interested in serving on this board or commission.**

Represent the County

_____

**What contribution would you most like to make?**

_____

_____

_____

**Additional pertinent information or references:**

_____

_____

_____

**(2) Name of Board/Commission:**

_____

_____

_____

**What contribution would you most like to make?**

_____

_____

_____

**Additional pertinent information or references:**

_____

_____

_____

***Applications are maintained on file in the City Secretary's office for a period of one year. Should you need additional information, please call us at 432-685-7430.***

**Signature of Applicant**

Dianne Anderson Digitally signed by Dianne Anderson
Date: 2023.11.06 09:56:57 -06'00'

_____

**Applications may be submitted online via email or print in order to send by mail or fax:**

**City of Midland**

**City Secretary's Office**

**PO Box 1152**

**Midland, TX 79702**

**FAX: (432) 685-7433**

Submit Via Email

Print Application

## APPLICATION FOR CITY OF MIDLAND BOARDS/COMMISSIONS/COMMITTEES

As an applicant for a City board, commission, or committee, please be advised that all information on this application is subject to the Texas Open Records Act and will be available to the public.

**PLEASE TYPE OR PRINT CLEARLY:**

**Name:** John Trischitti III

**Address:** 3107 Haynes

Midland TX 79705

(City) (State) (Zip)

**Date:** 11/5/2023

**Phone:** 2149345442 **(Home)**

4326850428 **(Business)**

**Email:** TrischittiIII@gmail.com

**I am** [✔] **I am not** [ ] **a U.S. Citizen**

**Please tell us about yourself:**

**I have lived in Midland** 15 **years.**

**Are you a graduate of Midland 101?** [ ] **yes** [✔] **no**

**Occupation:** Nonprofit Executive Director

**Professional and/or Community Activities:**

MISD Education Foundation Board Member

Gov. Abbott appointed to the Texas Diabetes Council

**What is your personal vision for the City?**

I believe that Midland is primed for another boom in the coming years. The explosive growth our city has experienced needs to be balanced by further investment in infrastructure and alternative economic streams like the Spaceport has the potential to bring.

**Please specify any time constraints you may have.**

n/a

**Please list below the Board(s) or Commission(s) on which you are interested in serving:**

**(You can find a complete and current list on the City's website at** *www.midlandtexas.gov***)**

**(1) Name of Board/Commission:**

Spaceport Development Corporation

**Please tell us why you are interested in serving on this board or commission.**

I have experience with the Spaceport while at the Midland Development Corp. I have also served on the Midland Air and Spaceport Board previously. I would like to serve my city by combining these two experiences and believe in the future of the Spaceport.

**What contribution would you most like to make?**

Past knowledge of the Spaceport and development.

**Additional pertinent information or references:**

**(2) Name of Board/Commission:**

**What contribution would you most like to make?**

**Additional pertinent information or references:**

***Applications are maintained on file in the City Secretary's office for a period of one year. Should you need additional information, please call us at 432-685-7430.***

**Signature of Applicant**



**Applications may be submitted online via email or print in order to send by mail:**

**City of Midland**

**City Secretary's Office**

**PO Box 1152**

**Midland, TX 79702**

Submit Via Email

Print Application

# APPLICATION FOR CITY OF MIDLAND BOARDS/COMMISSIONS/COMMITTEES

As an applicant for a City board, commission, or committee, please be advised that all information on this application is subject to the Texas Open Records Act and will be available to the public.

**PLEASE TYPE OR PRINT CLEARLY:**

**Date:** 6/26/2023

**Name:** Claudius Sanchez Czyzewska

**Phone:** 575-495-1378 **(Home)**

**Address:** 4315 Greenbriar Dr

432-999-2737 **(Business)**

Midland TX 79707

**Email:** claudius.sanchez@gmail.com

(City) (State) (Zip)

**I am** [✓] **I am not** [ ] **a U.S. Citizen**

**Please tell us about yourself:**

**Are you a graduate of Midland 101?** [ ] **yes** [✓] **no**

**I have lived in Midland** 5 **years.**

**Occupation:** Civil Engineer

**Professional and/or Community Activities:**

Principal Engineer at Magrym Consulting, Fitness Instructor at Midland YMCA, President Elect of Rotary Club of Midland,

Parent-coach for U8 boys Soccer MSA and U9 girls basketball YMCA, Manager of Real Midland Adult Soccer Team,

President Elect at Texas Society of Professional Engineers Permian Basin Chapter, UTPB Engineering Advisory Board Member

**What is your personal vision for the City?**

Make Midland a place where people want to live, where people feel proud of where they live and where people don't want to leave

behind. Ensure the City has all the necessary services, amenities and resources to attract and retain individuals and families from

any race and socio-economic background. Help citizens feel that Midland is not a transient community, but a permanent place to live.

**Please specify any time constraints you may have.**

max time commitment up to 2 hours/week

**Please list below the Board(s) or Commission(s) on which you are interested in serving:**

**(You can find a complete and current list on the City's website at *www.midlandtexas.gov*)**

**(1) Name of Board/Commission:**

Airport planning and development

**Please tell us why you are interested in serving on this board or commission.**

As a civil engineer, I envision airports as small versions of a full functioning City. The infrastructure maintenance and improvements

needed at the airport are critical to ensure successful day-to-day operations and sustainable growth. I believe my professional

background will be invaluable to the airport leadership, and will provide a positive and unique perspective in every decision.

**What contribution would you most like to make?**

My contribution will be focused on helping with infrastructure related decisions. From FOBs, to tarmac operations, to passenger access needs, I can contribute to assess capital project funding and maintenance needs. As an avid traveler and taxpayer, I am always on the look for the most cost-effective way to ensure any system, such as the airport, can function as efficient as possible.

**Additional pertinent information or references:**

**(2) Name of Board/Commission:**

**What contribution would you most like to make?**

**Additional pertinent information or references:**

***Applications are maintained on file in the City Secretary's office for a period of one year. Should you need additional information, please call us at 432-685-7430.***

**Signature of Applicant**



**Applications may be submitted online via email or print in order to send by mail:**

**City of Midland**

**City Secretary's Office**

**PO Box 1152**

**Midland, TX 79702**

Submit Via Email

Print Application

# APPLICATION FOR CITY OF MIDLAND BOARDS/COMMISSIONS/COMMITTEES

As an applicant for a City board, commission, or committee, please be advised that all information on this application is subject to the Texas Open Records Act and will be available to the public.

**PLEASE TYPE OR PRINT CLEARLY:**

**Date:** 11/6/2023

**Name:** Fernando O Carreon Vasquez

**Phone:** 432-227-4499 **(Home)**

**Address:** 3100 Caldera Boulevard Apt 1523

432-227-4499 **(Business)**

Midland TX 79705

**Email:** fcarreon88@gmail.com

(City) (State) (Zip)

**I am** ☐ **I am not** ☑ **a U.S. Citizen**

**Please tell us about yourself:**

**Are you a graduate of Midland 101?** ☐ **yes** ☑ **no**

**I have lived in Midland** 1 **years.**

**Occupation:** Enterprise Network Engineer

**Professional and/or Community Activities:**

While in College and University I was on different board and committees.Even being in charge of my local Student Government(SGA chapter in Odessa College and also being a part of different academic clubs like Phi Theta Kappa and the Math and Engineering club I held the regional president title while in SGA, Vice-President while in my Engineering club, and President in Phi Theta Kappa.

**What is your personal vision for the City?**

I love my City and its people that come in and out of the community. I have lived in the neighboring city of Odessa for most of my life I moved to Midland due to my job and plan on staying here for a while. I would like to join the board or committee to make the changes to develop

**Please specify any time constraints you may have.**

The only time constraint that I have is my career. I work fulltime from Monday through Friday 8:00AM to 4:00PM CST. I am free after I clock off and can attend any meeting as needed. I have no kids or family so I can dedicate my time to my board/committee and my community.

**Please list below the Board(s) or Commission(s) on which you are interested in serving:**

**(You can find a complete and current list on the City's website at *www.midlandtexas.gov*)**

**(1) Name of Board/Commission:**

Spaceport Development Corporation

**Please tell us why you are interested in serving on this board or commission.**

I have always found the Spaceport interesting and have been wanting to learn more of the commission/board.

**What contribution would you most like to make?**

Have the Spaceport be more active in our area and provide a better understanding to the citizens around the community, State, and Internationally. Also, provide the area with jobs and opportunities with future endeavors with the city and community.

**Additional pertinent information or references:**

I have work experience working in the Aero industry and within have had projects in college that pertained to the aerospace field and hope to continue my knowledge and service with my community. Also, being apart of different boards and committees helps me with knowledge with the government system as well.

**(2) Name of Board/Commission:**

Oil and Gas Advisory Commission

**What contribution would you most like to make?**

I would like to contribute to the commission with helping local oil and gas industries with expanding their growth via stakeholders, company growth, and providing with more job opportunities in our area. Also, to improve the research and development with our local oil and gas industries to keep resources and technology on the leading edge and lastly improve safety regulation.

**Additional pertinent information or references:**

Joshua Marquez Oil and Gas coordinator & logistics coordinatoe for Pro-Directional (432-559-6023)

I have former work experience in the technical end of the oil and gas industry and as well as serving with different advisory committees that implemented growth in sales, development and tech research.

***Applications are maintained on file in the City Secretary's office for a period of one year. Should you need additional information, please call us at 432-685-7430.***

**Signature of Applicant**

**Applications may be submitted online via email or print in order to send by mail:**

**City of Midland**

**City Secretary's Office**

**PO Box 1152**

**Midland, TX 79702**

Submit Via Email

Print Application

## APPLICATION FOR CITY OF MIDLAND BOARDS/COMMISSIONS/COMMITTEES

As an applicant for a City board, commission, or committee, please be advised that all information on this application is subject to the Texas Open Records Act and will be available to the public.

**PLEASE TYPE OR PRINT CLEARLY:**

**Date:** 11/7/2023

**Name:** Michael Dietrich

**Phone:** 281-513-4149 **(Home)**

**Address:** 2500 Seaboard Ave

_____ **(Business)**

Midland TX 79705

**Email:** Mike.wd1986@gmail.com

(City) (State) (Zip)

**I am** [✓] **I am not** [ ] **a U.S. Citizen**

**Please tell us about yourself:**

**Are you a graduate of Midland 101?** [ ] **yes** [✓] **no**

**I have lived in Midland** 4 **years.**

**Occupation:** Landman

**Professional and/or Community Activities:**

I've served on the Midland Country Club Membership and House Committees. I'm currently a member of ADAM-Permian, serve on the committee for MCRC's "Take the Money & Run" event, and am a very active parent for my kids schools (Hillander and the YMCA CLC). I love this community and want to get move involved.

**What is your personal vision for the City?**

Our city is the energy capital of the country and arguably the world. We should have TOP NOTCH amenities for every aspect of our lives. I want this city to grow and prosper and become a national spotlight city. So much important things go on here and we need to develop ourselves as a nationally prominent city.

**Please specify any time constraints you may have.**

I have a very flexible work schedule and a supportive wife. So I have seemingly no constraints.

**Please list below the Board(s) or Commission(s) on which you are interested in serving:**

**(You can find a complete and current list on the City's website at** *www.midlandtexas.gov***)**

**(1) Name of Board/Commission:**

Spaceport Development Corporation Board

**Please tell us why you are interested in serving on this board or commission.**

I want to serve the city I plan on raising my family in for many years to come. This board is really exciting for the expansion of opportunities for Midland and driving the growth we so badly need. Energy is the best industry in the world, but being able to

diversify and add aerospace would be fantastic. It is an exciting opportunity and I would love to be a part of it.

**What contribution would you most like to make?**

I would love to be part of this new and lasting legacy for our city. I want to contribute in any way that I can. I have a background in financial analysis and sales. I bring a background well suited for the outlook of this opportunity.

**Additional pertinent information or references:**

Spencer Robnett - 432-553-8545, Aron Marquez - 432-770-8624, Chris Blonkvist - 432-559-5784, Kevin Sparks - 432-556-0518

**(2) Name of Board/Commission:**

**What contribution would you most like to make?**

**Additional pertinent information or references:**

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**Signature of Applicant**



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**PLEASE TYPE OR PRINT CLEARLY:**

**Date:** 11/7/2023

**Name:** Lena Margita

**Phone:** 702-587-8463 **(Home)**

**Address:** 1214 Milltown Rd

432-570-3348 **(Business)**

Midland TX 79705

**Email:** lmargita@gmail.com

(City) (State) (Zip)

**I am** ☑ **I am not** ☐ **a U.S. Citizen**

**Please tell us about yourself:**

**Are you a graduate of Midland 101?** ☐ **yes** ☑ **no**

**I have lived in Midland** 13 **years.**

**Occupation:** Assistant Director of IT for PermiaCare

**Professional and/or Community Activities:**

I am an active member of the managing members of Prime Time Christian Broadcasting, a member of First Baptist Church, active parent in MidCities Baseball, and use my skills and talents as a computer programmer where and when I can to help people. I am a former board member for City of Midland Development Board 2009-2012.

**What is your personal vision for the City?**

I would like Midland to grow responsibly while maintaining it's family friendly status. The charm of Midland is that you can raise your children and keep them from the bad because of all of the positive activities and opportunities for children and families.

**Please specify any time constraints you may have.**

While I have a full time job with PermiaCare, they do make allowances for civic duty.

**Please list below the Board(s) or Commission(s) on which you are interested in serving:**

**(You can find a complete and current list on the City's website at *www.midlandtexas.gov*)**

**(1) Name of Board/Commission:**

Spaceport Development Corporation Board

**Please tell us why you are interested in serving on this board or commission.**

I have managed Innovative Engineering teams from 2017-2021. This, along with my vast technical skills, background in business, I can bring a diverse perspective to the board. Further, a few of my former colleagues work for SpaceX.

**What contribution would you most like to make?**

I would like Midland and the Midland SpacePort to reach it's full potential with regard to development of this unique opportunity.

Being able to get behind the vision and drive it is something I am passionate about. My diverse background brings many skills

including Computer Science, Engineering, Business Analytics, Program Management, and Business Automation.

**Additional pertinent information or references:**

Russ Whalcott - 801-473-7396

Glenn Pitchford - 432-528-2993

Jamie Meek - 432-559-6885

**(2) Name of Board/Commission:**

**What contribution would you most like to make?**

**Additional pertinent information or references:**

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**Signature of Applicant**

Lena Margita

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